GOLDSTAR WE32Q10IP

MODEL

SERVICE MANUAL

ADJUSTMENT INSTRUCTIONS

■ Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances.
5. Unless otherwise noted, set the line voltage to 230Vac±10%, 50Hz.

■ Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

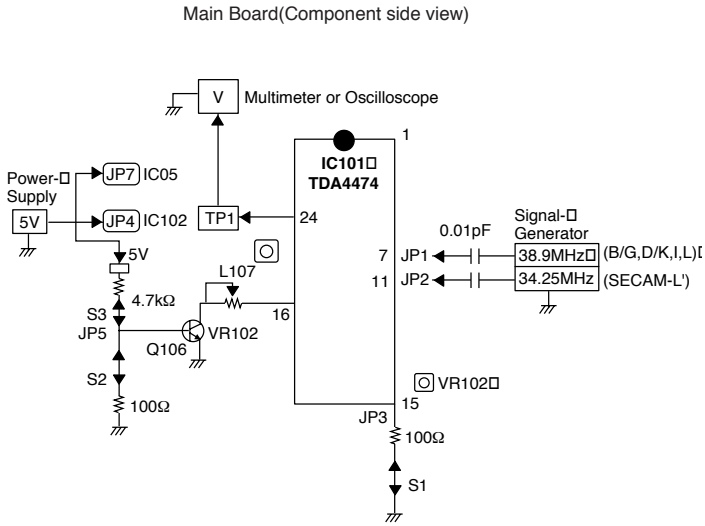


Fig. 1 : Connection Diagram of Equipment for PIF Adjustment

• PIF (Picture Intermediate Frequency) Adjustment

Test Point	**: TP1**
Adjust	**: L107**

1) Connect the measuring equipment to the Main Board as shown in Fig.1.
2) Set RF frequency and output level of RF SIGNAL GENERATOR as shown Table 1.
3) Turn off S1 and S3 and on S2.
4) Adjust L107 so that the DC voltage may be 2.5±0.1Vdc.

System	Frequency	Modulation	Output level	Adjust
B/G,D/K/I,SECAM-L	38.9MHz	OFF	10mVp-p	L107
SECAM-L'	34.25MHz	OFF	10mVp-p	VR102

(Table 1)

• SECAM-L' Adjustment

NOTE : This adjustment should be performed after PIF adjustment.

Test Point	**: TP1**
Adjust	**: VR102**

1) Turn on S1 and S3 and off S2.
2) Adjust VR102 so that the DC voltage may be indicated 2.5±0.1Vdc.

• RF AGC (Automatic Gain Control) Adjustment

Test Point	**: J209 or Observing Display**
Adjust	**: VR101**

The RF AGC control (VR101) was aligned at the time of manufacture for optimum performance over a wide range conditions. Readjustment of VR101 should not be necessary unless unusual local conditions exist, such as ;

1) Channel interference in a CATV system.
2) Picture bending and/or color beats, which are unusually due to excessive RF signal input when the receiver is too close to a transmitting tower or when the receiver is connected to an antenna distribution system where the RF signal has been amplified. In this case, the input signal should be attenuated (with pad or filter) to a satisfactory level.
3) Picture noise caused by "broadcast noise" or weak signal. If the broadcast is "clean" and the RF signal is at least 1mV (60dBu), the picture will be noise free in any area.

Adjusting the VR101(RF AGC) control to one end of rotation will usually cause a relatively poor signal to noise ratio;
Adjusting to the other end of rotation will usually cause a degradation of over load capabilities resulting in color beats or adjacent channel interference. For best results, adjust the VR101 control while performing on all over local channels, or the voltage at TP2 will be 2.3±0.1Vdc in RF level 65±1dBuV.

• Screen Voltage Adjustment

Test Point	**: RK (Red Cathode of CPT Board)**
Adjust	**: Screen Control of FBT**

NOTE: To enter SVC mode, press "OK" buttons on both TV set and the Remote control at the same time.

1) Tune the TV set to receive a digital pattern.
2) Press MIX button on remote controller for Service to get into the Screen Adjust Mode.
3) Adhere the Color Analyzer on the White window of CPT face.
4) Adjust Screen Volume of FBT so that the luminance of White window is 6.5±0.5ft/L.

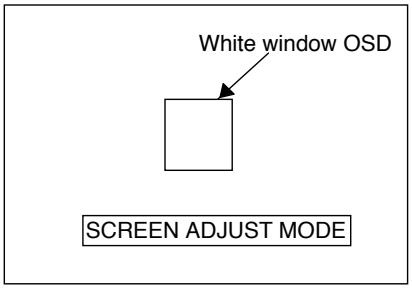


Fig. 2 SVC MODE for SCREEN Adjust

• Focus Adjustment

NOTE: This adjustment should be performed after warming up for 10 minutes.

Test Point	**: Observing Display**
Adjust	**: Focus control of FBT**

1) Tune the TV set to receive a digital pattern.
2) Adjust the lower Focus control of FBT for the best focus of vertical line B.
3) Adjust the upper Focus control of FBT for the best focus of area A.
4) Repeat above step 2) and 3) for the best overall focus.

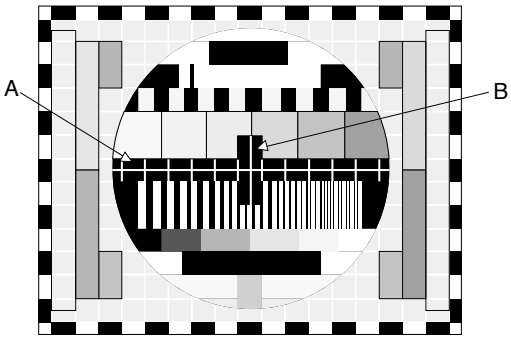


Fig. 3

• Deflection Data Adjustment (Line SVC-1)

1. Preparation for Deflection Adjustment

1) At SVC mode, press the Yellow colored button.
   If the Remote Controller doesn't have the Yellow button, use the button under the Channel Down(PR ▼) button.
   And then, deflection data adjustment OSD (SVC1 mode) will be displayed.
2) Press Channel UP/DOWN button for desirous function Adjustment.
3) Press Volume UP/DOWN button to adjust the data.

VL--(Vertical Linearity)
Adjust so that the boundary line between upper and lower half is in accord with geometric horizontal center of the CPT.

VA--(Vertical Height)
Adjust so that the circle of a digital circle pattern may be located within the effective screen of the CPT.

SC--(Vertical "S" correction)
Adjust so that all distance between each horizontal lines are to be the same.

VS--(Vertical Shift)
Adjust so that the horizontal center line of a digital circle pattern is in accord with geometric horizontal center of the CPT.

HS--(Horizontal Shift)
Adjust so that the vertical center line of a digital circle pattern is in accord with geometric vertical center of the CPT.

EW--(Horizontal Width)
Adjust to that a digital circle pattern looks like exact circle.

EC--(East-west Parabola)
Adjust so that middle portion of the outermost left and right vertical line looks like parallel with vertical lines of the CPT.

CRNU & CRNL
Adjust so that the vertical line at every 4 corners of the screen looks like parallel with the vertical lines of the CPT.

ET--(East-west Trapezium)
Adjust to make the length of top horizontal line same with it of the bottom horizontal line.

Menu	Range	LG 29” Flat
VL	0 ~ FFFF	0079
VA	0 ~ FFFF	00C1
SC	0 ~ FFFF	0091
VS	0 ~ FFFF	0082
HS	0 ~ FFFF	0092
EW	0 ~ FFFF	011D
ET	0 ~ FFFF	007F
EC	0 ~ FFFF	0061
CRNU	0 ~ FFFF	0083
CRNL	0 ~ FFFF	0083

(Table 2)

• White Balance Adjustment.(LINE SVC 0)

NOTE : This adjustment should be performed after screen voltage adjustment.

1) Tune the TV set to receive an 100% white pattern.
2) Press the Yellow button on remote controller in the SVC Mode (press OK buttons on both TV set and remote controller at the same time) then you can find On Screen Display.
3) Press PSM (RED) button on remote controller. (Standard picture)
4) Press PR+ or PR- button for desirous function adjustment.
5) Adjust VOL+ or VOL- button for CG:00E9.
6) Adjust VOL+ or VOL-button in each status of "Rg--"/"Bg--" for X=267±8, Y=273±8 with color analyzer (color temperature 13,000°K).

Menu	Range	LG 29” Flat
CR	0 ~ 511	00E9
CG	0 ~ 511	00E9
CB	0 ~ 511	00E9
WR	0 ~ 511	0187
WG	0 ~ 511	0187
WB	0 ~ 511	0187

(Table 3)

• OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2, OPTION-3)

NOTE: When the EEPROM has been replaced, the Option data should be restored as the function of individual system and specification.

1) Press OK buttons on both TV set and Remote Controller at the same time to get into SVC mode.
2) Press the Yellow button several times to find OPTION-1, OPTION-2 and OPTION-3.
3) Input the correspond OPTION data referring to Table below with the numeric buttons 0~9.

Table 1. OPTION 1 Function

Option	Code	Function	Remark
I/II SAVE	0	No SAVE DUAL Sound Condition	EU
	1	SAVE DUAL Sound Condition	NON-EU
EYE	0	Without EYE	
	1	With EYE	
H-Phone	0	Without Headphone Jack	
	1	With Headphone Jack	
Woofer	0	Squiter Amp.	
	1	Woofer Amp.	
Vol-Curve	0	Standard Curve	LOW STEP→RUSH
	1	Rushed Curve	HIGH STEP→SLOW
M-SYS	0	Without NTSC-M	
	1	With NTSC-M system	
L-SYS	0	Without SECAM L/L'	
	1	With SECAM L/L'	

Table 2. OPTION 1 CODE Data

OPTION Data	I/II SAVE	EYE	H-PHONE	Woofer	Volume	M SYS	L SYS
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
2	0	0	0	0	0	1	0
3	0	0	0	0	0	1	1
4	0	0	0	0	1	0	0
5	0	0	0	0	1	0	1
6	0	0	0	0	1	1	0
7	0	0	0	0	1	1	1
8	0	0	0	1	0	0	0
9	0	0	0	1	0	0	1
10	0	0	0	1	0	1	0
11	0	0	0	1	0	1	1
12	0	0	0	1	1	0	0
13	0	0	0	1	1	0	1
14	0	0	0	1	1	1	0
15	0	0	0	1	1	1	1
16	0	0	1	0	0	0	0
17	0	0	1	0	0	0	1
18	0	0	1	0	0	1	0
19	0	0	1	0	0	1	1
20	0	0	1	0	1	0	0
21	0	0	1	0	1	0	1
22	0	0	1	0	1	1	0
23	0	0	1	0	1	1	1
24	0	0	1	1	0	0	0
25	0	0	1	1	0	0	1
26	0	0	1	1	0	1	0
27	0	0	1	1	0	1	1
28	0	0	1	1	1	0	0
29	0	0	1	1	1	0	1
30	0	0	1	1	1	1	0
31	0	0	1	1	1	1	1
32	0	1	0	0	0	0	0
33	0	1	0	0	0	0	1
34	0	1	0	0	0	1	0
35	0	1	0	0	0	1	1
36	0	1	0	0	1	0	0
37	0	1	0	0	1	0	1
38	0	1	0	0	1	1	0
39	0	1	0	0	1	1	1
40	0	1	0	1	0	0	0
41	0	1	0	1	0	0	1
42	0	1	0	1	0	1	0
43	0	1	0	1	0	1	1
44	0	1	0	1	1	0	0
45	0	1	0	1	1	0	1
46	0	1	0	1	1	1	0
47	0	1	0	1	1	1	1
48	0	1	1	0	0	0	0
49	0	1	1	0	0	0	1
50	0	1	1	0	0	1	0
51	0	1	1	0	0	1	1
52	0	1	1	0	1	0	0
53	0	1	1	0	1	0	1
54	0	1	1	0	1	1	0
55	0	1	1	0	1	1	1
56	0	1	1	1	0	0	0
57	0	1	1	1	0	0	1
58	0	1	1	1	0	1	0
59	0	1	1	1	0	1	1
60	0	1	1	1	1	0	0
61	0	1	1	1	1	0	1
62	0	1	1	1	1	1	0

OPTION Data	I/II SAVE	EYE	H-PHONE	Woofer	Volume	M SYS	L SYS
63	0	1	1	1	1	1	1
64	1	0	0	0	0	0	0
65	1	0	0	0	0	0	1
66	1	0	0	0	0	1	0
67	1	0	0	0	0	1	1
68	1	0	0	0	1	0	0
69	1	0	0	0	1	0	1
70	1	0	0	0	1	1	0
71	1	0	0	0	1	1	1
72	1	0	0	1	0	0	0
73	1	0	0	1	0	0	1
74	1	0	0	1	0	1	0
75	1	0	0	1	0	1	1
76	1	0	0	1	1	0	0
77	1	0	0	1	1	0	1
78	1	0	0	1	1	1	0
79	1	0	0	1	1	1	1
80	1	0	1	0	0	0	0
81	1	0	1	0	0	0	1
82	1	0	1	0	0	1	0
83	1	0	1	0	0	1	1
84	1	0	1	0	1	0	0
85	1	0	1	0	1	0	1
86	1	0	1	0	1	1	0
87	1	0	1	0	1	1	1
88	1	0	1	1	0	0	0
89	1	0	1	1	0	0	1
90	1	0	1	1	0	1	0
91	1	0	1	1	0	1	1
92	1	0	1	1	1	0	0
93	1	0	1	1	1	0	1
94	1	0	1	1	1	1	0
95	1	1	0	1	1	1	1
96	1	1	0	0	0	0	0
97	1	1	0	0	0	0	1
98	1	1	0	0	0	1	0
99	1	1	0	0	0	1	1
100	1	1	0	0	1	0	0
101	1	1	0	0	1	0	1
102	1	1	0	0	1	1	0
103	1	1	0	0	1	1	1
104	1	1	0	1	0	0	0
105	1	1	0	1	0	0	1
106	1	1	0	1	0	1	0
107	1	1	0	1	0	1	1
108	1	1	0	1	1	0	0

OPTION Data	I/II SAVE	EYE	H-PHONE	Woofer	Volume	M SYS	L SYS
109	1	1	0	1	1	0	1
110	1	1	0	1	1	1	0
111	1	1	0	1	1	1	1
112	1	1	1	0	0	0	0
113	1	1	1	0	0	0	1
114	1	1	1	0	0	1	0
115	1	1	1	0	0	1	1
116	1	1	1	0	1	0	0
117	1	1	1	0	1	0	1
118	1	1	1	0	1	1	0
119	1	1	1	0	1	1	1
120	1	1	1	1	0	0	0
121	1	1	1	1	0	0	1
122	1	1	1	1	0	1	0
123	1	1	1	1	0	1	1
124	1	1	1	1	1	0	0
125	1	1	1	1	1	0	1
126	1	1	1	1	1	1	0
127	1	1	1	1	1	1	1

Table 3. OPTION 2 Function

Option	Code	Function	Remark
TOP TEXT(TOP=0)	0 1	FLOP TEXT TOP TEXT	Without
TURBO	0 1	W/O TURBO Picture & Sound With TURBO Picture & Sound	To compensate the Inclination of picuture
DK CHINA	0 1	Without D/K CHINA With D/K CHINA	
BB SYS	0 1	Without BB System With BB System	
VGA	0 1	Without VGA Mode With VGA Mode	
DVD	0 1	Without DVD(Y, Cr, Cb) Input With DVD Input	

Table 4. OPTION 2 CODE Data

OPTION Data	TOP	TURBO	D/K	B/B	VGA	DVD
0	0	0	0	0	0	0
1	0	0	0	0	0	1
2	0	0	0	0	1	0
3	0	0	0	0	1	1
4	0	0	0	1	0	0
5	0	0	0	1	0	1
6	0	0	0	1	1	0
7	0	0	0	1	1	1
8	0	0	1	0	0	0
9	0	0	1	0	0	1
10	0	0	1	0	1	0
11	0	0	1	0	1	1
12	0	0	1	1	0	0
13	0	0	1	1	0	1
14	0	0	1	1	1	0
15	0	0	1	1	1	1
16	0	1	0	0	0	0
17	0	1	0	0	0	1
18	0	1	0	0	1	0
19	0	1	0	0	1	1
20	0	1	0	1	0	0
21	0	1	0	1	0	1
22	0	1	0	1	1	0
23	0	1	0	1	1	1
24	0	1	1	0	0	0
25	0	1	1	0	0	1
26	0	1	1	0	1	0
27	0	1	1	0	1	1
28	0	1	1	1	0	0
29	0	1	1	1	0	1
30	0	1	1	1	1	0
31	0	1	1	1	1	1
32	1	0	0	0	0	0
33	1	0	0	0	0	1
34	1	0	0	0	1	0
35	1	0	0	0	1	1
36	1	0	0	1	0	0
37	1	0	0	1	0	1
38	1	0	0	1	1	0
39	1	0	0	1	1	1
40	1	0	1	0	0	0
41	1	0	1	0	0	1
42	1	0	1	0	1	0
43	1	0	1	0	1	1
44	1	0	1	1	0	0
45	1	0	1	1	0	1
46	1	0	1	1	1	0
47	1	0	1	1	1	1
48	1	1	0	0	0	0
49	1	1	0	0	0	1
50	1	1	0	0	1	0
51	1	1	0	0	1	1
52	1	1	0	1	0	0
53	1	1	0	1	0	1
54	1	1	0	1	1	0
55	1	1	0	1	1	1
56	1	1	1	0	0	0
57	1	1	1	0	0	1
58	1	1	1	0	1	0
59	1	1	1	0	1	1
60	1	1	1	1	0	0
61	1	1	1	1	0	1
62	1	1	1	1	1	0
63	1	1	1	1	1	1

Table 5. OPTION 3 Function

Option	Code	Function	Remark
Soft Touch	0	Use Normal Key Board	According to
	1	Use Soft Touch Key Board	Tool Outlook.
Wide TV	0	4:3 TV	
	1	16:9 TV	
Scart	0	Scart Input	AV1
	1	Phone Input	
LNA	0	Without LNA	
	1	With LNA	
OSD	0	English Only	
	1	Eng+Chinese	
	2	Eng+French+Arabic+Urdu+Parsi	
	3	Eng+German+French+Italian+Spainish+Netherlandish +Portuguese	
	4	Eng+Swedenish+Norwegian+Danish+Finish	
	5	Eng+Romanian+Polish+Hungarian+Czech+Russian	
	6	Reserved	
	7	Full	

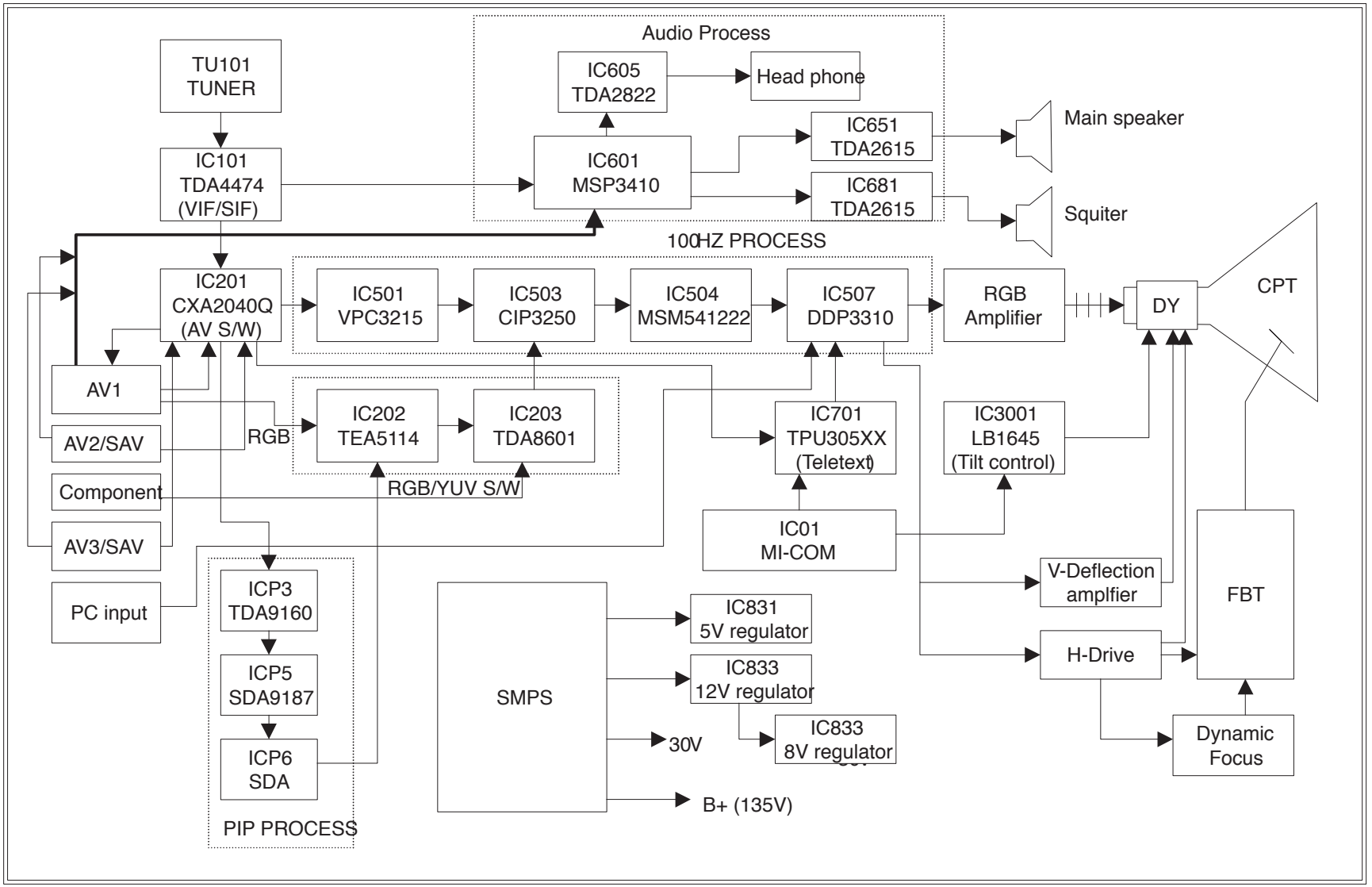
Table 6. OPTION 3 CODE Data

OPTION Data	Soft	Wide TV	Scart	LNA	OSD
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	0	2
3	0	0	0	0	3
4	0	0	0	0	4
5	0	0	0	0	5
6	0	0	0	0	6
7	0	0	0	0	7
8	0	0	0	1	0
9	0	0	0	1	1
10	0	0	0	1	2
11	0	0	0	1	3
12	0	0	0	1	4
13	0	0	0	1	5
14	0	0	0	1	6
15	0	0	0	1	7
16	0	0	1	0	0
17	0	0	1	0	1
18	0	0	1	0	2
19	0	0	1	0	3
20	0	0	1	0	4
21	0	0	1	0	5
22	0	0	1	0	6
23	0	0	1	0	7
24	0	0	1	1	0
25	0	0	1	1	1
26	0	0	1	1	2
27	0	0	1	1	3
28	0	0	1	1	4
29	0	0	1	1	5
30	0	0	1	1	6
31	0	0	1	1	7
32	0	1	0	0	0
33	0	1	0	0	1
34	0	1	0	0	2
35	0	1	0	0	3
36	0	1	0	0	4
37	0	1	0	0	5
38	0	1	0	0	6
39	0	1	0	0	7
40	0	1	0	1	0
41	0	1	0	1	1
42	0	1	0	1	2
43	0	1	0	1	3
44	0	1	0	1	4
45	0	1	0	1	5
46	0	1	0	1	6
47	0	1	0	1	7
48	0	1	1	0	0
49	0	1	1	0	1
50	0	1	1	0	2
51	0	1	1	0	3
52	0	1	1	0	4
53	0	1	1	0	5
54	0	1	1	0	6
55	0	1	1	0	7
56	0	1	1	1	0
57	0	1	1	1	1
58	0	1	1	1	2
59	0	1	1	1	3
60	0	1	1	1	4
61	0	1	1	1	5
62	0	1	1	1	6
63	0	1	1	1	7
64	1	0	0	0	0
65	1	0	0	0	1
66	1	0	0	0	2
67	1	0	0	0	3
68	1	0	0	0	4
69	1	0	0	0	5

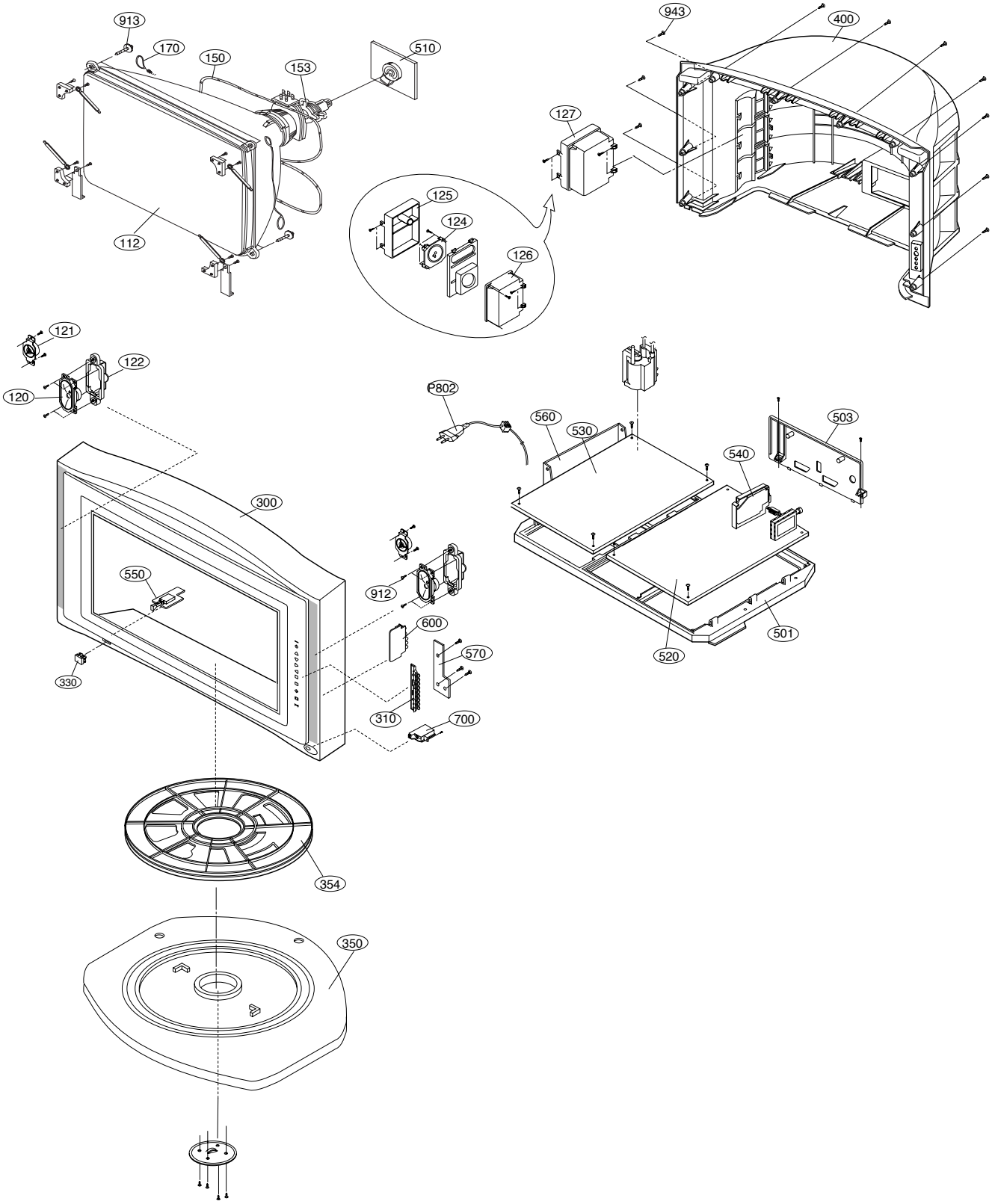
OPTION Data	Soft	Wide TV	Scart	LNA	OSD
70	1	0	0	0	6
71	1	0	0	0	7
72	1	0	0	1	0
73	1	0	0	1	1
74	1	0	0	1	2
75	1	0	0	1	3
76	1	0	0	1	4
77	1	0	0	1	5
78	1	0	0	1	6
79	1	0	0	1	7
80	1	0	1	0	0
81	1	0	1	0	1
82	1	0	1	0	2
83	1	0	1	0	3
84	1	0	1	0	4
85	1	0	1	0	5
86	1	0	1	0	6
87	1	0	1	0	7
88	1	0	1	1	0
89	1	0	1	1	1
90	1	0	1	1	2
91	1	0	1	1	3
92	1	0	1	1	4
93	1	0	1	1	5
94	1	0	1	1	6
95	1	0	1	1	7
96	1	1	0	0	0
97	1	1	0	0	1
98	1	1	0	0	2
99	1	1	0	0	3
100	1	1	0	0	4
101	1	1	0	0	5
102	1	1	0	0	6
103	1	1	0	0	7
104	1	1	0	1	0
105	1	1	0	1	1
106	1	1	0	1	2
107	1	1	0	1	3
108	1	1	0	1	4
109	1	1	0	1	5
110	1	1	0	1	6
111	1	1	0	1	7
112	1	1	1	0	0
113	1	1	1	0	1
114	1	1	1	0	2
115	1	1	1	0	3

OPTION Data	Soft	Wide TV	Scart	LNA	OSD
116	1	1	1	0	4
117	1	1	1	0	5
118	1	1	1	0	6
119	1	1	1	0	7
120	1	1	1	1	0
121	1	1	1	1	1
122	1	1	1	1	2
123	1	1	1	1	3
124	1	1	1	1	4
125	1	1	1	1	5
126	1	1	1	1	6
127	1	1	1	1	7

BLOCK DIAGRAM



EXPLODED VIEW

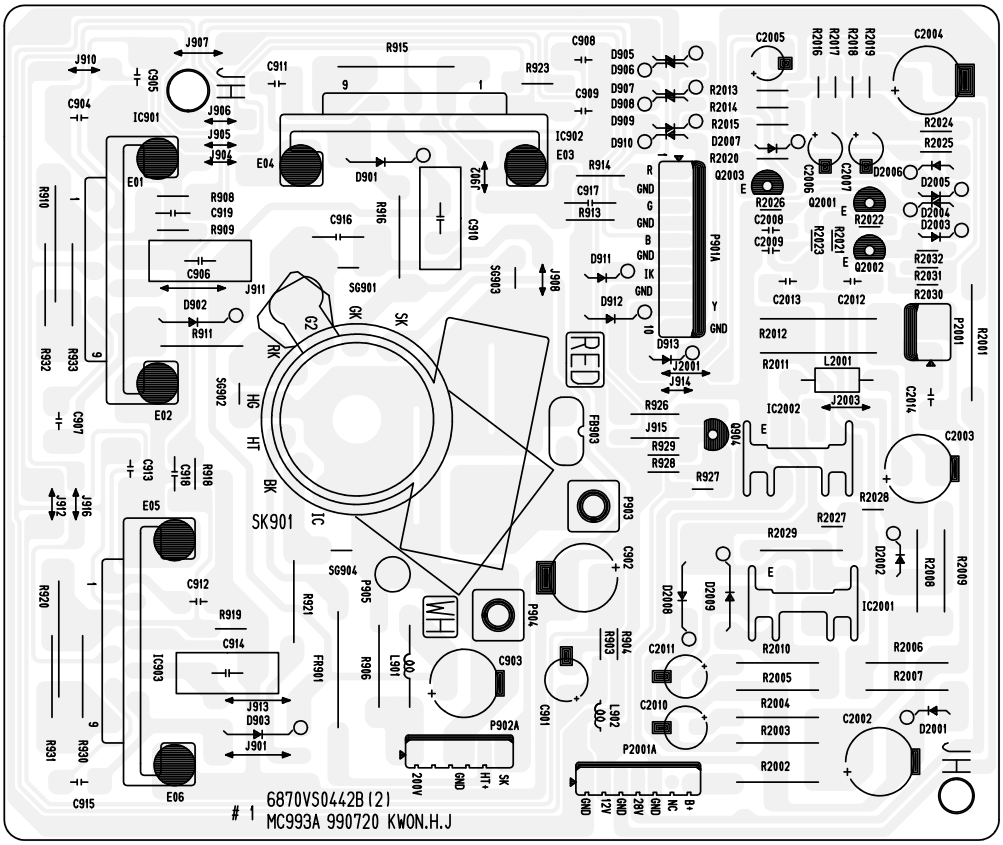


EXPLODED VIEW PARTS LIST

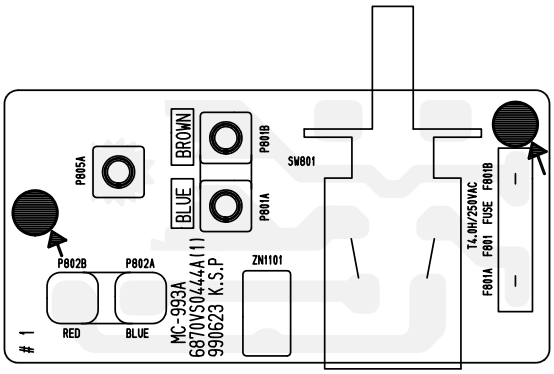
The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTIONS
⚠ 112	6341V32003A	BARE CPT ASSY,2440GE489AC 100HZ DY
120	120-C77G	SPEAKER,GENERAL 8OHM 10
121	120-D39C	SPEAKER,TWEETER 8OHM 10W/20W
122	4810V00088A	BRACKET,SPEAKER
124	120-C78G	SPEAKER,WOOFER 8 OHM 10W/
125	3110V00018A	CASE,WOOFER TOP
126	3110V00019A	CASE,WOOFER BOTTOM
127	6401VA0004B	SPEAKER ASSY WOOFER(L)
⚠ 150	150-201J	COIL,DEGAUSSING
⚠ 153	6150ZT5340B	DY,DW32SLFL2
⚠ 170	170-797X	CPT EARTH,32" 144T 2LUG
300	3091V00152B	CABINET ASSY
310	5020V00274A	BUTTON,CONTROL TOUCH SWITCH
330	5020V00374A	BUTTON,POWER
350	4980V00035A	SUPPORTER,BASE
354	4980V00056A	SUPPORTER,SWIVEL ROLLER
400	3809V00092B	BACK COVER ASSY(2 SCART)
501	4810V00139A	BRACKET,MAIN
503	3500V00019B	BOARD,MAIN
510	6871VSM371D	PWB ASSY,CPT&VM
520	6871VMM311P	PWB ASSY MAIN WL-32Q10
	6871VMM311Q	PWB ASSY MAIN WE-32Q10
530	6871VDM073E	PWB ASSY MAIN2 32Q10 W/ST-BY
	6871VDM073F	PWB ASSY MAIN2 32Q10 W/O ST-BY
540	6871VSM313C	PWB ASSY,DIGIT MC993A CE/CL
550	6871VSM513A	PWB ASSY,POWER
560	6871VSM437A	PWB ASSY,SIDE BOD.
570	6871VSM511A	PWB ASSY,S/TOUCH
600	6871VSM512A	PWB ASSY,SIDE AV
700	0IGL120104D	IC,G-LINK CDS SENSOR MODULE(P1201-04)
913	332-229A	SCREW ASSY,HEXAGON HEAD SPECIAL
943	1PTF0403116	SCREW,TAP TITE D4.0 L16.0
⚠ P802	174-009V	CORD,POWER(W/HOLD,HOUSING)L=400,4.0

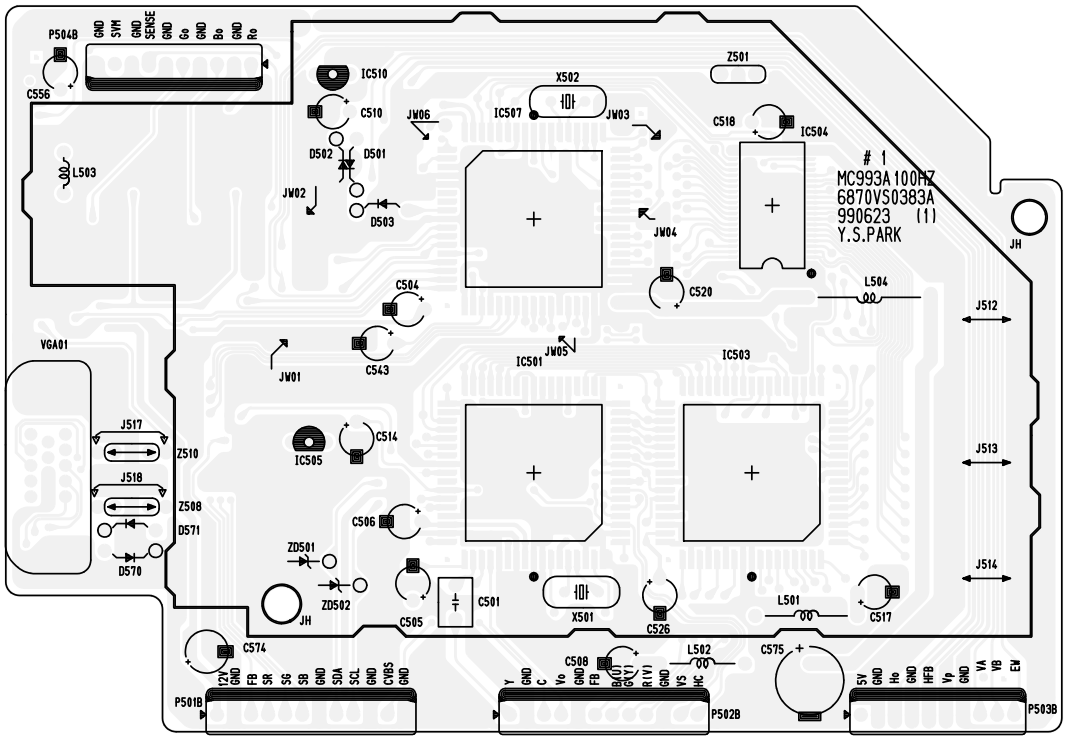
CPT



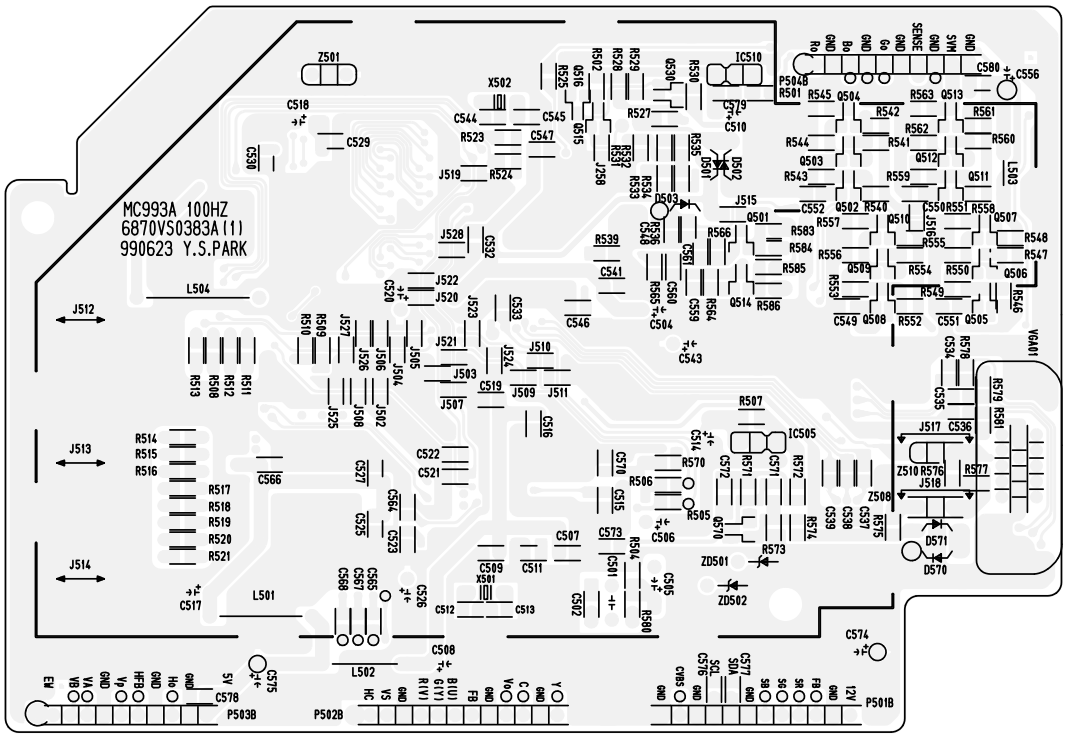
CONTROL POWER



DIGITAL(TOP)

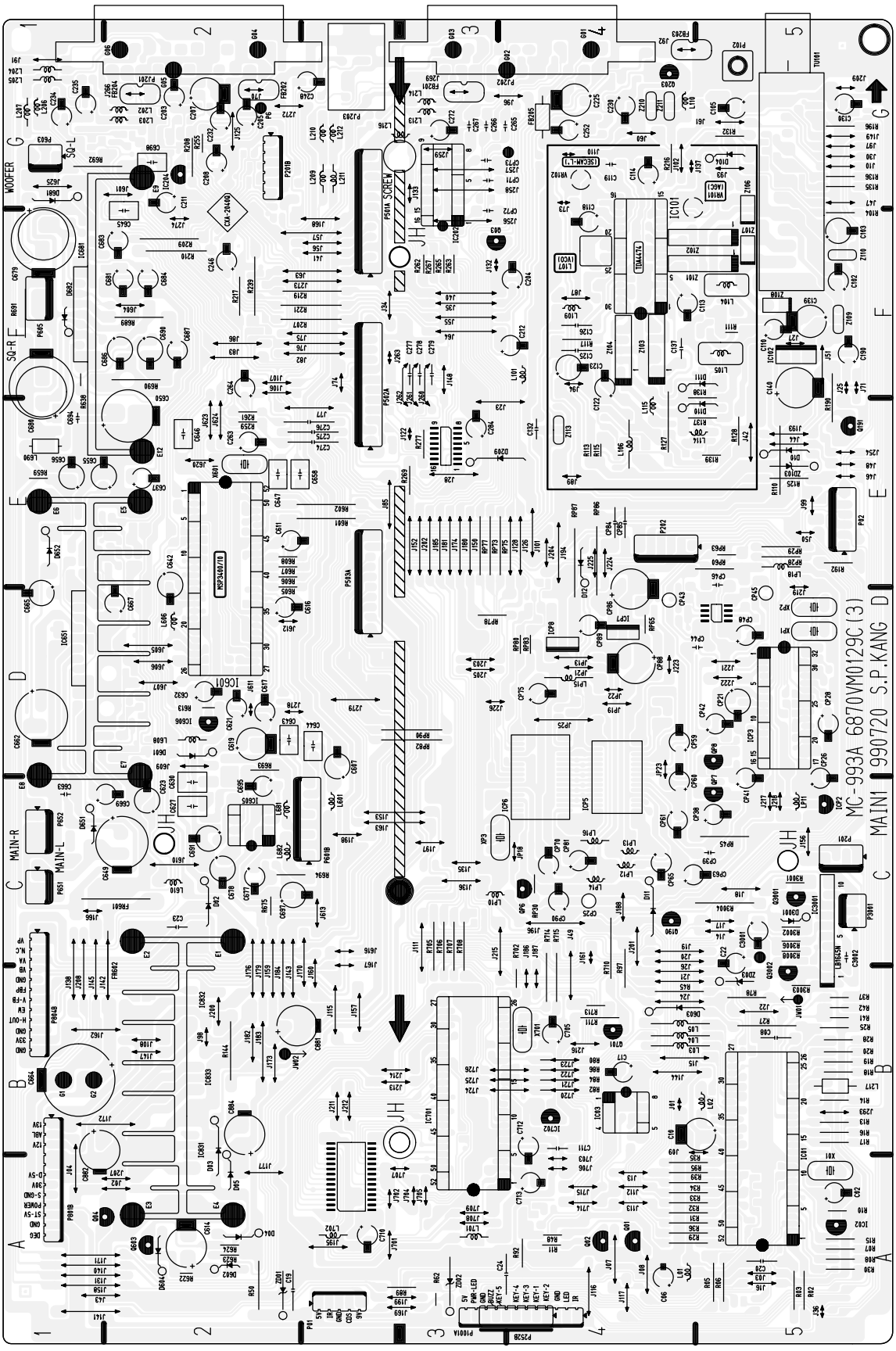


DIGITAL(BOTTOM)

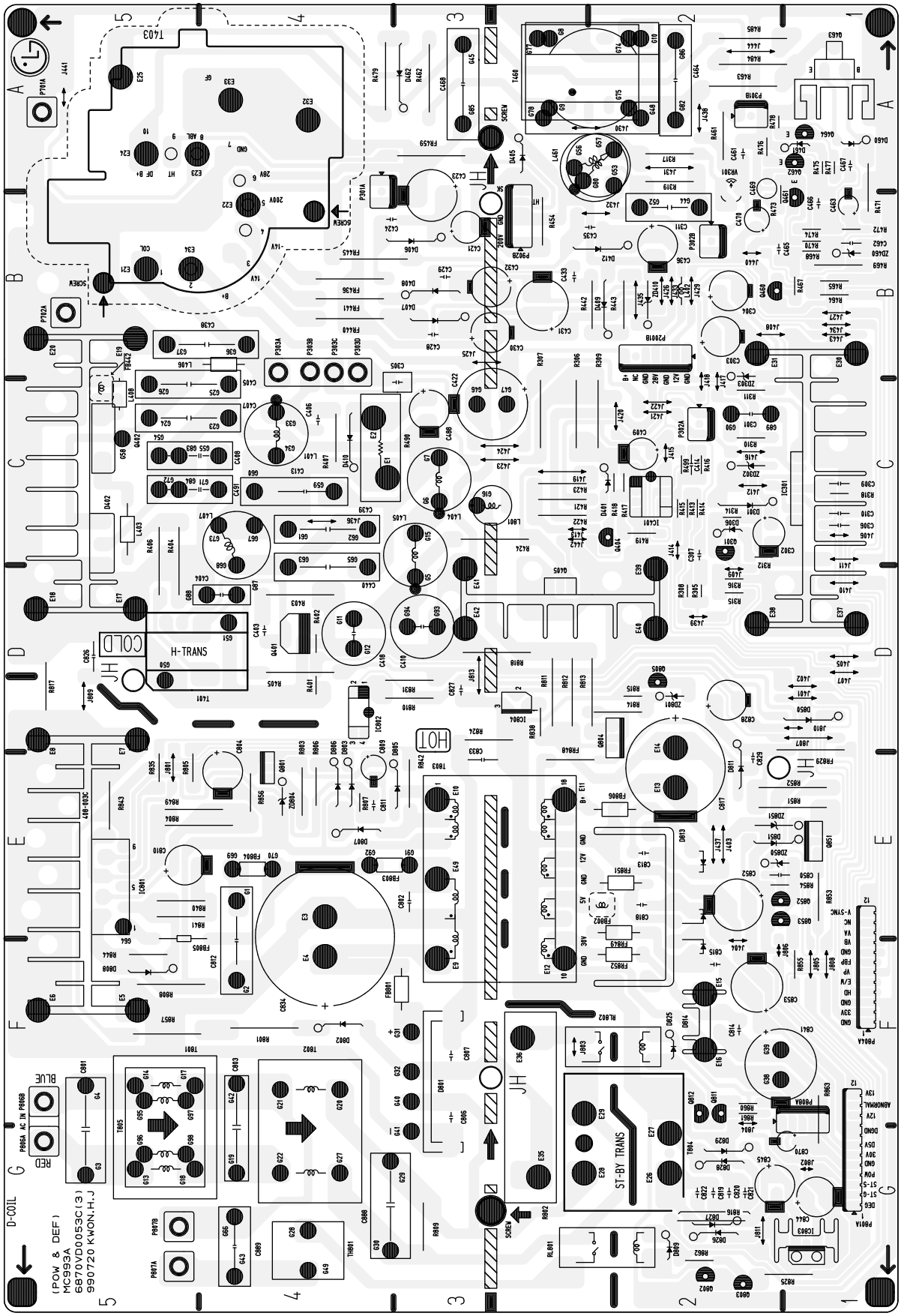


PRINTED CIRCUIT BOARD

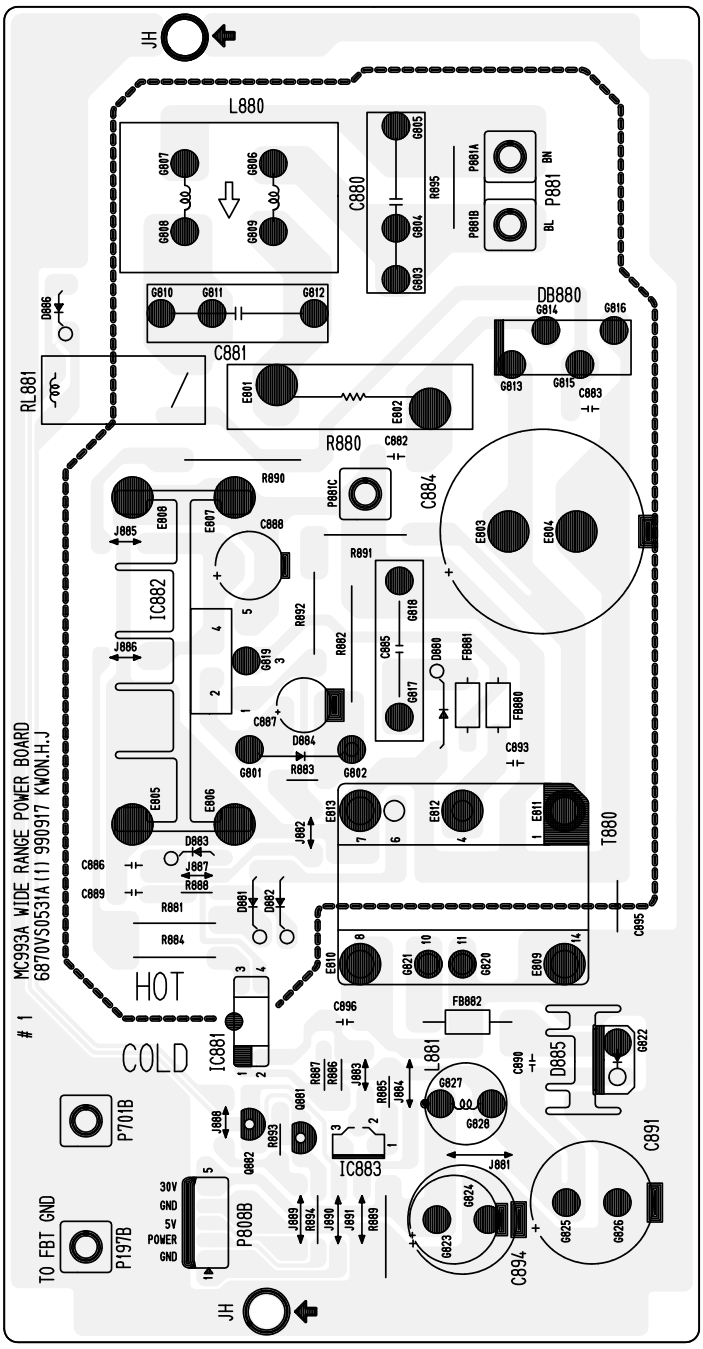
MAIN



MAIN 2


H-TRANS
ST-BY TRANS
COLD
HOT
D-COIL
(POW & DEF)
MC993A
6870VD0053C(3)
990720 KWON.H.J

POWER BOARD


MC993A WIDE RANGE POWER BOARD
6870VS0531A (1) 990917 KWON.H.J
1
HOT
COLD
TO FBT GND
P197B
P701B
P808B
30V
GND
5V
POWER
GND
IC881
IC882
IC883
T880
L880
L881
C880
C881
C882
C883
C884
C885
C886
C887
C888
C889
C890
C891
C893
C894
C895
C896
R880
R881
R882
R883
R884
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R886
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R889
R890
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R892
R893
R894
R895
DB880
RL881
D880
D881
D882
D883
D884
D885
D886
FB880
FB881
FB882
Q881
Q882
P881
P881A
P881B
P881C
BN
BL
JH
E801
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J873
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J885
J886

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
	IC	
D813	0ISK100300A	BC,SLA1003 SIP12 BK DIODE MODULE(
ICS01	0ISG747410A	IC,M74HC74M1R 14P,SOP TP DUAL DTY
IC01	0ISO750011A	IC,CXP7500P11S-1(OTP) 52SDIP BK M
ICP2	0IKE780800B	IC,KIA78L08BP(TA) TO-92 8V,150MA
ICS02	0ISG747410A	IC,M74HC74M1R 14P,SOP TP DUAL DTY
IC02	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
IC03	0IAL241600B	IC,AT24C16-10PC 8D EEPROM 16K
ICS03	0IMO156216A	IC,JLC1562BN 16D I,C BUS EXPANDER
ICP3	0IPH916030A	IC,TDA9160A/N3 32SD P/N/S DECODER
ICP4	0ISM918900A	IC,SDA9189X 32SOP PIP(QUARTER)
ICP5	0ISM918730A	IC,SDA9187/3X 28P SOP BK PIP A/D
ICP6	0IET221000B	IC,EL2210CS 8P SOP ST VIDEO AMP
ICP7	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
ICP8	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
IC101	0ITF447400A	IC,TDA4474(VIF)
IC102	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
IC201	0ISO204000A	IC,CXA2040AQ 32P,QFP BK IIC BUS V
IC202	0ISG511400A	IC,TEA5114 16D RGB S/W
IC204	0IKE780900H	IC,KIA78L09BP(AT) 3P 9V,150MA
⚠ IC301	0ISA784500A	IC,LA7845 7SIP V/OUT(1.5A)
IC401	0IKE455800E	IC,KIA4558 8DIP DUAL OP AMP
IC501	0IIT321560A	IC,VPC3215C-PT-B6 68P,PLCC BK COM
IC503	0IIT325010A	IC,CIP3250A-PS-B1 68P,PLCC BK INT
IC504	0IOK541222A	IC,MSM5412222-30TS-K 44P,TSOP TP
IC505	0ISS754200A	IC,KA7542Z RESET TO92 TP 4.2V
IC507	0IIT331020A	IC,DDP3310B-PT-C2 68P,PLCC BK DIS
IC510	0IKE780800B	IC,KIA78L08BP(TA) TO-92 8V,150MA
IC601	0IIT341000J	IC,MSP3410D-C5 52P SDIP BK MULTI
IC605	0ISG282200A	IC,TDA2822M 8D DUAL AUDIO AMP(1W)
IC606	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
IC651	0IPH261600A	IC,TDA2616 STEREO AMP(20+20W)
IC652	0IPH261600A	IC,TDA2616 STEREO AMP(20+20W)
IC681	0IPH261600A	IC,TDA2616 STEREO AMP(20+20W)
IC701	0IIT305000A	IC,TPU3050 52P,SDIP BK TELETEXT P
IC702	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
IC703	0ISS622567D	IC,KM62256DLG-7L 28P,SOP TP 256K
⚠ IC801	0ISK670900A	IC,STR/S6709 9S SMPS-CNTR
IC802	0ISH123200B	IC,PC123 FY2 PHOTO COUPLER
IC803	0ISH052100A	IC,PQ05RF21 4P(TO-220) 5V S/W REG
IC804	0ISK130000A	IC,SE130N 3P 130V ERROR AMP
IC831	0ISH052100A	IC,PQ05RF21 4P(TO-220) 5V S/W REG
IC832	0ISH122100A	IC,PQ12RF21 4P(TO-220) 12V S/W RE
IC833	0IKE780800A	IC,KIA7808PI 3P(TO-220IS) 1A,8V
IC901	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP
IC902	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP
IC903	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP
IC3001	0ISA164500B	IC,LB1645N 10SIP BK MOTOR DRIVE I
	DIODE	
D02	0DD414809ED	DIODE,1N4148 TA
D10	0DD414809ED	DIODE,1N4148 TA
D11	0DD414809ED	DIODE,1N4148 TA
D12	0DD414809ED	DIODE,1N4148 TA
D101	0DD226239AA	DIODE,SWITCHING KDS226 SOT-23
D102	0DD226239AA	DIODE,SWITCHING KDS226 SOT-23
D104	0DD414809ED	DIODE,1N4148 TA
D110	0DD859009AA	DIODE,SILICON MA859
D111	0DD859009AA	DIODE,SILICON MA859
D301	0DD150009CA	DIODE,RECTIFIER RGP15J
D306	0DD414809ED	DIODE,1N4148 TA
D401	0DD414809ED	DIODE,1N4148 TA
D402	0DD300000AD	DIODE,FMS-3FU SANKEN
D405	0DD400509AA	DIODE,RECTIFIER 1N4005
D406	0DD200009AF	DIODE,RECTIFIER RU2M V(1)
D407	0DD200009AF	DIODE,RECTIFIER RU2M V(1)
D408	0DD200009AF	DIODE,RECTIFIER RU2M V(1)
D409	0DD100009AU	DIODE,RECTIFIER EU1AV(1)
D410	0DD150009CA	DIODE,RECTIFIER RGP15J
D412	0DD200009AF	DIODE,RECTIFIER RU2M V(1)
D460	0DD414809ED	DIODE,1N4148 TA
D461	0DD414809ED	DIODE,1N4148 TA
D462	0DD100009AQ	DIODE,RP1HV(1)
D501	0DD414809ED	DIODE,1N4148 TA
D502	0DD414809ED	DIODE,1N4148 TA
D503	0DD414809ED	DIODE,1N4148 TA
D570	0DD414809ED	DIODE,1N4148 TA
D571	0DD414809ED	DIODE,1N4148 TA
D602	0DD414809ED	DIODE,1N4148 TA
D603	0DD414809ED	DIODE,1N4148 TA
D604	0DD414809ED	DIODE,1N4148 TA
D651	0DD414809ED	DIODE,1N4148 TA
D652	0DD414809ED	DIODE,1N4148 TA
D681	0DD414809ED	DIODE,1N4148 TA
D682	0DD414809ED	DIODE,1N4148 TA
D683	0DD181009AB	DIODE,SWITCHING KDS181 85V 300MA
⚠ D801	0DD560000AA	DIODE,RECTIFIER D5SB60(5A/600V)
D802	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D803	0DD100009AM	DIODE,RECTIFIER EU1ZV(1)
D805	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D806	0DD100009AM	DIODE,RECTIFIER EU1ZV(1)
D807	0DD100009AM	DIODE,RECTIFIER EU1ZV(1)
D808	0DD100009AL	DIODE,EH-1ZV(1)
D809	0DD414809ED	DIODE,1N4148 TA
D811	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D814	0DD420000BB	DIODE,D4L20U SHINDENGEN
D825	0DD414809ED	DIODE,1N4148 TA
D826	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D827	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D828	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D829	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D850	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D851	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D901	0DD400509AA	DIODE,RECTIFIER 1N4005
D902	0DD400509AA	DIODE,RECTIFIER 1N4005

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
D903	0DD400509AA	DIODE,RECTIFIER 1N4005
D905	0DD414809ED	DIODE,1N4148 TA
D906	0DD414809ED	DIODE,1N4148 TA
D907	0DD414809ED	DIODE,1N4148 TA
D908	0DD414809ED	DIODE,1N4148 TA
D909	0DD414809ED	DIODE,1N4148 TA
D910	0DD414809ED	DIODE,1N4148 TA
D911	0DD414809ED	DIODE,1N4148 TA
D912	0DD414809ED	DIODE,1N4148 TA
D913	0DD414809ED	DIODE,1N4148 TA
D2001	0DD414809ED	DIODE,1N4148 TA
D2002	0DD414809ED	DIODE,1N4148 TA
D2004	0DD414809ED	DIODE,1N4148 TA
D2005	0DD414809ED	DIODE,1N4148 TA
D2006	0DD414809ED	DIODE,1N4148 TA
D2007	0DD414809ED	DIODE,1N4148 TA
D2008	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D2009	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D3001	0DD414809ED	DIODE,1N4148 TA
DS01	0DD247109AA	DIODE,DETECTOR 1S2471
DS02	0DD247109AA	DIODE,DETECTOR 1S2471
DS03	0DD247109AA	DIODE,DETECTOR 1S2471
ZDS01	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZD01	0DZ910009AJ	DIODE,ZENER MTZJ9.1B DO34 0.5W
ZD02	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM)
ZD03	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM)
ZDS04	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZDS05	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZDS06	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZD103	0DZ330009BA	DIODE,ZENER HZT33(TP)
ZD302	0DZ180009AG	DIODE,ZENER MTZJ18B DO34 500MW
ZD303	0DZ180009AG	DIODE,ZENER MTZJ18B DO34 500MW
ZD410	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM)
ZD460	0DZ120009AF	DIODE,ZENER MTZJ12B DO34 500MW
ZD501	0DZ750009AG	DIODE,ZENER MTZJ7.5B DO34 0.5W
ZD502	0DZ750009AG	DIODE,ZENER MTZJ7.5B DO34 0.5W
ZD801	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM)
ZD804	0DZ750009AG	DIODE,ZENER MTZJ7.5B DO34 0.5W
ZD850	0DZ910009AJ	DIODE,ZENER MTZJ9.1B DO34 0.5W
ZD1201	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZD1202	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZD1205	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
ZD1206	0DZ620009BB	DIODE,ZENER MTZJ6.2B DO34 0.5W
IC2001	0TR437000BA	TR,KTC4370A-Y
IC2002	0TR165900AC	TR,KTA1659A-Y TO-220IS KEC

TRANSISTOR

Q01	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q02	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
Q03	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q04	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q10	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC

LOCA. NO	PART NO	DESCRIPTION
Q11	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q101	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q102	0TR388109AA	TR,KTC3881 CHIP KEC
Q103	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q105	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q106	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q107	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q108	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q150	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q201	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q202	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q203	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q204	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q205	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q207	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q231	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q301	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q353	0TR471000AA	TR,2SC4710 SANYO OTOROLA IBA
Q401	0TF200000AA	FET,IRFIBC20G BK I.R 600V 1.7
⚠ Q402	0TR544600AA	TR,2SC5446(AS) BK TOSHIBA TO3P
Q404	0TR127509AC	TR,KTA1275-Y TP(KTA1013),KEC
Q405	0TR205900AA	TR,KTD2059-O,TO-220IS,100V,5A,KEC
Q460	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q461	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q462	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q463	0TR471000AA	TR,2SC4710
Q464	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q501	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q502	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q503	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q504	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q505	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q506	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q507	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q508	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q509	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q510	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q511	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q512	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q513	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q514	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q530	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q570	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q603	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q641	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q642	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q651	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q661	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q681	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q701	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q801	0TR385200AA	TR,2SC3852A SANKEN
Q802	0TR322709AA	TR,KTC3227-Y,TP(KTC1627A),KEC

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RN : Metal Film
RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
Q803	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q804	0TR968000AA	TR,KTA968A-Y KEC
Q805	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q811	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q812	0TR322709AA	TR,KTC3227-Y,TP(KTC1627A),KEC
Q851	0TR968000AA	TR,KTA968A-Y KEC
Q852	0TR322800AB	TR,KTC3228-Y(KTC2383),KEC
Q853	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q904	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q910	0TR437000BA	TR,KTC4370A-Y TO-220IS KEC
Q2001	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q2002	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q2003	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q3001	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q3002	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
QP6	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
QP7	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QP8	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
QP9	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
QS01	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS02	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS03	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS04	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS05	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS06	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS07	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS08	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS09	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS10	0TR388009BB	TR,KTC3880-Y TP KEC SOT23 CHIP
QS11	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS12	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS13	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS14	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS15	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS16	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS20	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS21	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS22	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS23	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS25	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS27	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS28	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS29	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS30	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS31	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS32	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS33	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS34	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
QS35	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
QS70	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC

CAPACITOR

LOCA. NO	PART NO	DESCRIPTION
C02	0CE335DK618	3.3000UF STD 50V M
C06	0CE476DD618	47UF STD 10V M
C08	0CN1030F679	10000P 16V M
C10	0CE227DD618	220UF STD 10V M
C17	0CE476DF618	47UF STD 16V M
C19	0CN1030F679	10000P 16V M Y
C20	0CN1010K519	100P 50V K B TA52
C24	0CN8200K519	82P 50V K B TA52
C102	0CE106DK618	10UF STD 50V M
C103	0CE476DD618	47UF STD 10V M
C105	0CE475DK618	4.7000UF STD 50V M
"	0CE225DK618	2.2000UF STD 50V M *WE-
C110	0CE476DF618	47UF STD 16V M
C113	0CE106DF618	10UF STD 16V M
C114	0CE225DK618	2.2000UF STD 50V M
"	181-007H	ECQ-V1H474JZ3 *WE-
C118	0CE225DK618	2.2000UF STD 50V M
C119	181-007H	ECQ-V1H474JZ3(TR),50V 0.4
C122	0CE226DF618	22UF STD 16V M
C123	0CE474DK618	0.4700UF STD 50V M
C125	0CN1030F679	10000P 16V M
C126	0CX4700K409	47P 50V J
C130	0CE227DF618	220UF STD 16V M
"	0CE225DK618	2.2000UF STD 50V M *WE-
C132	0CX4700K409	47P 50V J
C137	0CN1030F679	10000P 16V M
C139	0CE227DF618	220UF STD 16V M
C140	0CE477DF618	470UF STD 16V M
C204	0CE225DK618	2.2000UF STD 50V M
C205	0CE225DK618	2.2000UF STD 50V M
C207	0CE227DF618	220UF STD 16V M
C208	0CE336DF618	33UF STD 16V M
C211	0CE336DF618	33UF STD 16V M
C212	0CE225DK618	2.2000UF STD 50V M
C225	0CE227DF618	220UF STD 16V M
C230	0CE106DF618	10UF STD 16V M
C234	0CE226DK618	22UF STD 50V M
C235	0CE226DK618	22UF STD 50V M
C246	0CE104DK618	0.1000UF STD 50V M
C252	0CE106DF618	10UF STD 16V M
C263	0CE226DF618	22UF STD 16V M
C264	0CE226DF618	22UF STD 16V M
C265	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
C266	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
C267	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
C272	0CE106DF618	10UF STD 16V M
C301	0CQ4741N501	0.47U 100V K
C302	0CE107DJ618	100UF STD 35V M
C303	0CE477DH618	470UF STD 25V M
C304	0CE477DH618	470UF STD 25V M
C305	0CQ1041N509	0.1U 100V K
C306	0CN1020K519	1000P 50V K

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LOCA. NO	PART NO	DESCRIPTION
C307	0CQ3331N509	0.033U 100V K
C309	0CN2710K519	270P 50V K
C310	0CN5610K519	560P 50V K
C401	0CX5600K409	56P 50V J
C403	0CK2210W515	220P 500V K
C404	181-009V	PP 200V 0.047UF K
C405	181-014C	MPP 1600V 0.0056UF J
C406	0CK10201515	1000P 1KV K B TS
C407	181-014C	MPP 1600V 0.0056UF J
C408	181-010T	PP 630V 0.015UF J
C409	0CE107DK618	100UF STD 50V M
C410	0CE5651K652	5.6000UF SM 50V M
C413	181-013M	MPP 400V 0.22UF J
C414	0CN4710K519	470P 50V K B TA52
C418	0CE5651K652	5.6000UF SM 50V M
C421	0CE225DR618	2.2000UF STD 250V M
C422	0CE2276Q650	220UF SMS 200V M
C423	0CE2266R630	22U SMS 250V M FM5
C424	0CK56101515	560P 1KV K B TS
C428	0CK56101515	560P 1KV K B TS
C429	0CK56101515	560P 1KV K B TS
C430	0CE477DH618	470UF STD 25V M
C431	0CE108DJ618	1000UF STD 35V M
C432	0CE477DH618	470UF STD 25V M
C433	0CQ1021N509	0.001U 100V K
C435	0CK56101515	560P 1KV K B TS
C436	0CE107DK618	100UF STD 50V M
C438	181-834C	MPP 2000V 0.0015UF J
C439	181-010E	PP 400V 0.12UF J
C440	181-010D	PP 400V 0.1UF J
C461	0CQ3931N509	0.0390UF 100V K
C462	0CN1040K949	0.1M 50V Z
C463	0CE476DF618	47UF STD 16V M
C464	181-015K	MPP 1600V 0.0091UF H
C465	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C466	181-007T	ECQ-V1H105JZ3(TR),50V 1.0
C467	181-007J	ECQ-V1H564JZ3(TR),50V 0.5
C468	181-014N	MPP 1600V 0.01UF J
C469	181-064P	CE BP 16V 10 MFTR
C470	0CE476DK618	47UF STD 50V M
C488	0CE106DR618	10UF STD 250V M
C491	181-010T	PP 630V 0.015UF J
C501	181-007T	ECQ-V1H105JZ3(TR),50V 1.0
C504	0CE476DF618	47UF STD 16V M
C505	0CE684DK618	0.6800UF STD 50V M
C506	0CE106DF618	10UF STD 16V M
C508	0CE476DF618	47UF STD 16V M
C510	0CE336DF618	33UF STD 16V M
C514	0CE335DK618	3.3000UF STD 50V M
C517	0CE476DF618	47UF STD 16V M
C518	0CE107DF618	100UF STD 16V M
C520	0CE107DF618	100UF STD 16V M

LOCA. NO	PART NO	DESCRIPTION
C526	0CE106DF618	10UF STD 16V M
C543	0CE335DK618	3.3000UF STD 50V M
C556	0CE106DF618	10UF STD 16V M
C574	0CE477DF618	470UF STD 16V M
C575	0CE108DD618	1000UF STD 10V M
C607	0CE476DF618	47UF STD 16V M
C611	0CE106DF618	10UF STD 16V M
C614	0CE227DF618	220UF STD 16V M
C616	0CE106DF618	10UF STD 16V M
C617	0CE106DF618	10UF STD 16V M
C619	0CE107DH618	100UF STD 25V M
C621	0CE106DF618	10UF STD 16V M
C623	0CE476DF618	47UF STD 16V M
C627	181-007H	ECQ-V1H474JZ3(TR),50V 0.4
C630	181-007H	ECQ-V1H474JZ3(TR),50V 0.4
C632	0CE335DK618	3.3000UF STD 50V M
C642	0CE107DF618	100UF STD 16V M
C643	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C644	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C645	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C646	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C647	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C649	0CE108DJ618	1000UF STD 35V M
C650	0CE227DK618	220UF STD 50V M
C655	0CE474DK618	0.4700UF STD 50V M
C656	0CE106DF618	10UF STD 16V M
C658	181-007G	ECQ-V1H334JZ3(TR),50V 0.3
C662	0CE108DJ618	1000UF STD 35V M
C663	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
C664	0CE477DK618	470UF STD 50V M
C665	0CE107DH618	100UF STD 25V M
C667	0CE225DK618	2.2000UF STD 50V M
C669	0CE225DK618	2.2000UF STD 50V M
C677	0CE107DF618	100UF STD 16V M
C678	0CE107DF618	100UF STD 16V M
C679	0CE228DJ650	2200UF STD 35V M
C680	0CE228DJ650	2200UF STD 35V M
C681	0CQ6831N509	0.068U 100V K
C683	0CE105DK618	1UF STD 50V M
C684	0CE474DK618	0.4700UF STD 50V M
C686	0CE476DK618	47UF STD 50V M
C687	0CE106DH618	10UF STD 25V M
C690	0CE106DH618	10UF STD 25V M
C691	0CE107DF618	100UF STD 16V M
C694	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
C695	0CE107DF618	100UF STD 16V M
C697	0CE107DF618	100UF STD 16V M
C705	0CE335DK618	3.3000UF STD 50V M
C710	0CE106DF618	10UF STD 16V M
C711	0CN1040K949	0.1M 50V Z
C712	0CE476DF618	47UF STD 16V M
C713	0CE106DF618	10UF STD 16V M

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LOCA. NO	PART NO	DESCRIPTION
C718	0CE477DD618	470UF STD 10V M
⚠ C801	0CQZVBK002B	A.C 275V 0.15UF K (S=22.5)
C802	181-091K	DE0907-486 R 561K 2KV
⚠ C803	0CQZVBK002B	A.C 275V 0.15UF K (S=22.5)
C804	0CE227DJ618	220UF STD 35V M
C806	181-091D	DE0905-979 R 102K 1KV
C807	181-091D	DE0905-979 R 102K 1KV
C809	0CE106DN618	10UF STD 100V M
C810	0CE477BH618	470UF KME TYPE 25V M
C811	0CK1020K515	1000P 50V K
C812	181-014Z	MPP 1.6KV 0.0033UF J
C813	181-091C	DE0705-979 R 471K 1KV
C814	181-091C	DE0705-979 R 471K 1KV
C815	181-091C	DE0705-979 R 471K 1KV
C817	181-001A	CE 200V 470UF M
⚠ C818	181-091C	DE0705-979 R 471K 1KV
C819	0CK1020W515	1000P 500V K
C820	0CK1020W515	1000P 500V K
C821	0CK1020W515	1000P 500V K
C822	0CK1020W515	1000P 500V K
C827	0CQ1041N509	0.1U 100V K
C828	0CE476DN618	47UF STD 100V M
C829	181-091C	DE0705-979 R 471K 1KV
⚠ C833	181-120K	ACT 4KV E 222M TP10
⚠ C834	181-001U	CE 450V 470UF M
C841	0CE228DK650	2200UF STD 50V M
C844	0CE477DD618	470UF STD 10V M
C845	0CE337DH618	330UF STD 25V M
"	0CE108DF618	1000UF STD 16V M *W/ST-BY
C850	0CN1040K949	0.1M 50V Z
C852	0CE108DF618	1000UF STD 16V M
C853	0CE108DF618	1000UF STD 16V M
C870	0CE108DD618	1000UF STD 10V M
C881	0CE477DF618	470UF STD 16V M
C882	0CE477DF618	470UF STD 16V M
C884	0CE477DH618	470UF STD 25V M
⚠ C888	0CQZVBK002B	A.C 275V 0.15UF K (S=22.5)
⚠ C889	0CQZVBK002A	A.C 275V 0.1UF M (S=15)
C901	0CE107DF618	100UF STD 16V M
C902	0CE477DF618	470UF STD 16V M
C903	0CE225DR618	2.2000UF STD 250V M
C904	0CQ1041N509	0.1U 100V K
C905	0CQ1041N509	0.1U 100V K
C906	181-005J	PE 400V 0.033UF K(S:7.5)
C907	181-091C	DE0705-979 R 471K 1KV
C908	0CQ1041N509	0.1U 100V K
C909	0CQ1041N509	0.1U 100V K
C910	181-005J	PE 400V 0.033UF K(S:7.5)
C911	181-091C	DE0705-979 R 471K 1KV
C912	0CQ1041N509	0.1U 100V K
C913	0CQ1041N509	0.1U 100V K
C914	181-005J	PE 400V 0.033UF K(S:7.5)

LOCA. NO	PART NO	DESCRIPTION
C915	181-091C	DE0705-979 R 471K 1KV
C916	0CK22202515	2200PF 2KV K
C917	0CX3R90K509	3.9P 50V K
C918	0CX3R90K509	3.9P 50V K
C919	0CX3R90K509	3.9P 50V K
C1203	0CN2210K519	220P 50V K
C1204	0CN1040K949	0.1M 50V Z
C1205	0CN2210K519	220P 50V K
C1206	0CN4710K519	470P 50V K
C1207	0CN4710K519	470P 50V K
C1208	0CN2210K519	220P 50V K
C1209	0CE475DK618	4.7000UF STD 50V M
C1210	0CE475DK618	4.7000UF STD 50V M
C1211	0CN2210K519	220P 50V K
C2002	0CE106DP618	10UF STD 160V M
C2003	0CE106DP618	10UF STD 160V M
C2004	0CE107DK618	100UF STD 50V M
C2005	0CE106DH618	10UF STD 25V M
C2006	0CE106DH618	10UF STD 25V M
C2007	0CE106DH618	10UF STD 25V M
C2008	0CK1010K515	100PF 50V K
C2009	0CK1010K515	100PF 50V K
C2010	0CE107DF618	100UF STD 16V M
C2011	0CE107DF618	100UF STD 16V M
C2012	0CK4720W510	4700P 500V K
C2013	0CK4720W510	4700P 500V K
C2014	0CK1010W515	100P 500V K
C3001	0CE475DK618	4.7000UF STD 50V M
C3002	0CQ1032K439	0.0100UF S 50V J
CP21	0CE107DF618	100UF STD 16V M
CP25	0CE105CK636	1UF SHL,SD 50V M
CP26	0CE476DF618	47UF STD 16V M
CP28	0CE684DK618	0.6800UF STD 50V M
CP38	0CE476DF618	47UF STD 16V M
CP39	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP41	0CE106DF618	10UF STD 16V M
CP42	0CE476DF618	47UF STD 16V M
CP43	0CE105CK636	1UF SHL,SD 50V M
CP44	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP45	0CE105CK636	1UF SHL,SD 50V M
CP46	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP48	0CE476DF618	47UF STD 16V M
CP59	0CE105DK618	1UF STD 50V M
CP60	0CE105DK618	1UF STD 50V M
CP61	0CE105DK618	1UF STD 50V M
CP63	0CE476DF618	47UF STD 16V M
CP65	0CE476DF618	47UF STD 16V M
CP70	0CE476DF618	47UF STD 16V M
CP71	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP72	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP73	181-007C	ECQ-V1H104JZ3(TR),50V 0.1
CP75	0CE105DK618	1UF STD 50V M

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LOCA. NO	PART NO	DESCRIPTION
CP81	0CE105DK618	1UF STD 50V M
CP84	0CX4700K409	47P 50V J
CP85	0CX4700K409	47P 50V J
CP86	0CE477DF618	470UF STD 16V M
CP88	0CE476DF618	47UF STD 16V M
CP89	0CE476DF618	47UF STD 16V M
CP90	0CE476DF618	47UF STD 16V M
CS13	0CE476DD618	47UF STD 10V M
CS15	0CE227DD618	220UF STD 10V M
CORE		
FB201	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB204	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB205	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB801	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB802	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB803	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB804	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB805	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB806	125-022K	CORE (CIRC),BEAD FERRITE 1UH
FB903	125-123A	CORE (CIRC),FERRITE BFD3565R2F
L406	125-022K	CORE (CIRC),BEAD FERRITE 1UH
L409	125-022K	CORE (CIRC),BEAD FERRITE 1UH
L410	125-022K	CORE (CIRC),BEAD FERRITE 1UH
L1205	125-022K	CORE (CIRC),BEAD FERRITE 1UH
L2001	125-022K	CORE (CIRC),BEAD FERRITE 1UH
R505	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
R506	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
R509	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
R510	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
R523	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
R524	6210TCT002B	CORE (CIRC),BEAD ACB2012M-300-T
FUSE		
⚠ F801	131-098B	FUSE,4000MA 250 V 5.2X20
⚠ FR849	131-096N	FUSE,4000MA 125 V 2.5X7.6
⚠ FR851	131-096N	FUSE,4000MA 125 V 2.5X7.6
⚠ FR852	131-096N	FUSE,4000MA 125 V 2.5X7.6
COIL & TRANSFORMER		
L01	0LA0102K119	INDUCTOR,10UH K
L02	0LA0181K119	INDUCTOR,1.8UH K
L101	0LA0102K119	INDUCTOR,10UH K
L104	150-C01G	COIL,CHOKE 1.0UH A 1105
L105	0LA0470K119	INDUCTOR,0.47UH K
L106	0LA0102K119	INDUCTOR,10UH K
L107	150-E11G	COIL,IFT VAR,38.9MHZ(VCO)
L109	0LA0152K119	INDUCTOR,15UH K
L110	0LA0681K119	INDUCTOR,6.8UH K
L114	0LA0102K119	INDUCTOR,10UH K
L115	0LA0102K119	INDUCTOR,10UH K
L202	0LA0102K119	INDUCTOR,10UH K

LOCA. NO	PART NO	DESCRIPTION
L203	0LA0102K119	INDUCTOR,10UH K
L204	0LA0102K119	INDUCTOR,10UH K
L205	0LA0102K119	INDUCTOR,10UH K
L206	0LA0102K119	INDUCTOR,10UH K
L207	0LA0102K119	INDUCTOR,10UH K
L209	0LA0102K119	INDUCTOR,10UH K
L210	0LA0102K119	INDUCTOR,10UH K
L211	0LA0102K119	INDUCTOR,10UH K
L212	0LA0102K119	INDUCTOR,10UH K
L213	0LA0102K119	INDUCTOR,10UH K
L214	0LA0102K119	INDUCTOR,10UH K
L216	0LA0102K119	INDUCTOR,10UH K
L401	150-L02Q	COIL,H-LINEARITY 10UH
L404	150-C13B	COIL,CHOKE 52UH R 1824
L405	150-C13B	COIL,CHOKE 52UH R 1824
L407	150-W01A	COIL,WIDTH 24UH
L461	150-717K	COIL,CHOKE 1.1MH
L501	0LA0102K139	INDUCTOR,10UH K
L502	0LA0102K139	INDUCTOR,10UH K
L503	0LA0102K119	INDUCTOR,10UH K
L504	0LA0102K139	INDUCTOR,10UH K
L601	0LA0102K119	INDUCTOR,10UH K
L606	0LA0102K119	INDUCTOR,10UH K
L608	0LA0102K119	INDUCTOR,10UH K
L610	0LA0102K119	INDUCTOR,10UH K
L681	0LA1000K119	INDUCTOR,100UH K
L682	0LA1000K119	INDUCTOR,100UH K
L701	0LA0102K119	INDUCTOR,10UH K
L702	0LA0102K119	INDUCTOR,10UH K
L703	0LA0102K139	INDUCTOR,10UH K
L801	150-C02F	COIL,CHOKE 82UH R1217
L901	0LA0102K139	INDUCTOR,10UH K
L902	0LA0102K119	INDUCTOR,10UH K
L1201	0LA0472K119	INDUCTOR,47UH K
L1202	0LA0472K119	INDUCTOR,47UH K
L1203	0LA0472K119	INDUCTOR,47UH K
L1204	0LA0472K119	INDUCTOR,47UH K
LP10	0LA1000K139	INDUCTOR,100UH K
LP11	0LA0102K119	INDUCTOR,10UH K
LP12	0LA0102K119	INDUCTOR,10UH K
LP13	0LA0102K119	INDUCTOR,10UH K
LP14	0LA0102K119	INDUCTOR,10UH K
LP15	0LA0102K119	INDUCTOR,10UH K
LP16	0LA0102K119	INDUCTOR,10UH K
LP18	0LA0102K119	INDUCTOR,10UH K
LS01	0LA0102K119	INDUCTOR,10UH K
⚠T401	6170VC0002A	TRANSFORMER,HORIZONTAL DRIVER
⚠T403	6174Z-6005S	FBT FTMPC31 -T6005S
T460	151-E06A	TRANSFORMER,DBF,EER-2834,BULK
T803	6170VMCA01V	TRANSFORMER,SMPS EER5345 450UH
T804	151-D02G	TRANSFORMER,ST-BY EI-35

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LOCA. NO	PART NO	DESCRIPTION
		CONNECTOR
P601A	387-B08K	CONNECTOR ASSY,8P SHIELD(600)
P801A	387-812L	CONNECTOR ASSY,YJN250 12P
P804A	387-812L	CONNECTOR ASSY,YJN250 12P
P902A	387-A06F	CONNECTOR ASSY,6P (L=350)
P2001A	387-A07F	CONNECTOR ASSY,7P (L=350)
		JACK
JA1	6613V00004A	JACK ASSY,PJ6054A EARPHONE+S-VHS+3P
PJ201	6612VMH001A	JACK,SCART UPJ-R1-018 RGB 21 PI
PJ202	6612VMH001A	JACK,SCART UPJ-R1-018 RGB 21 PI
		RESISTOR
D2003	0RD0102F609	10 1/6W 5 TA52
⚠ FR436	180-D02E	RNF RND(S) CR 2W 1.0 J
⚠ FR440	180-D02E	RNF RND(S) CR 2W 1.0 J
⚠ FR441	180-D02E	RNF RND(S) CR 2W 1.0 J
⚠ FR445	180-D02E	RNF RND(S) CR 2W 1.0 J
⚠ FR459	0RF0141K607	1.40 OHM 2 W 5% TA62
⚠ FR829	0RS6801K607	6.80K 2W 5% TA62
⚠ FR848	0RF0470H609	0.47 1/2W 5 TA52
⚠ FR901	0RF0331K607	3.30 2W 5% TA62
J517	0RD0101F609	1.0 1/6W 5 TA52
J518	0RD0101F609	1.0 1/6W 5 TA52
R02	0RD2200F609	220 1/6W 5 TA52
R03	0RD1000F609	100 1/6W 5 TA52
R05	0RD1000F609	100 1/6W 5 TA52
R06	0RD1000F609	100 1/6W 5 TA52
R07	0RD1000F609	100 1/6W 5 TA52
R08	0RD1000F609	100 1/6W 5 TA52
R10	0RD1002F609	10K 1/6W 5 TA52
R11	0RD1602F609	16K 1/6W 5 TA52
R13	0RD1000F609	100 1/6W 5 TA52
R14	0RD6802F609	68K 1/6W 5 TA52
R15	0RD1000F609	100 1/6W 5 TA52
R16	0RD1000F609	100 1/6W 5 TA52
R17	0RD1000F609	100 1/6W 5 TA52
R18	0RD1000F609	100 1/6W 5 TA52
R19	0RD1000F609	100 1/6W 5 TA52
R20	0RD1000F609	100 1/6W 5 TA52
R25	0RD2401F609	2.4K 1/6W 5 TA52
R27	0RD1000F609	100 1/6W 5 TA52
R28	0RD1001F609	1.0K 1/6W 5 TA52
R29	0RD1000F609	100 1/6W 5 TA52
R30	0RD1000F609	100 1/6W 5 TA52
R31	0RD1000F609	100 1/6W 5 TA52
R32	0RD1000F609	100 1/6W 5 TA52
R33	0RD1000F609	100 1/6W 5 TA52
R34	0RD1000F609	100 1/6W 5 TA52
R35	0RD1000F609	100 1/6W 5 TA52
R36	0RD1000F609	100 1/6W 5 TA52

LOCA. NO	PART NO	DESCRIPTION
R45	0RD5601F609	5.6K 1/6W 5 TA52
R48	0RD3901F609	3.9K 1/6W 5 TA52
R50	0RD6200F609	620 1/6W 5 TA52
R62	0RD4701F609	4.70K 1/6W 5% TA52
R78	0RD4701F609	4.70K 1/6W 5% TA52
R80	0RD0752F609	75 1/6W 5% TA
R82	0RD0752F609	75 1/6W 5% TA
R84	0RD0752F609	75 1/6W 5% TA
R86	0RD0752F609	75 1/6W 5% TA
R89	0RD1000F609	100 1/6W 5 TA52
R97	0RD1001F609	1.0K 1/6W 5 TA52
R104	0RD8201F609	8.2K 1/6W 5 TA52
R110	0RS0681K607	6.80 2W 5% TA62
R111	0RD3601F609	3.6K 1/6W 5 TA52
R113	0RD1002F609	10K 1/6W 5 TA52
R115	0RD1002F609	10K 1/6W 5 TA52
R117	0RD1001F609	1.0K 1/6W 5 TA52
R125	0RD1001F609	1.0K 1/6W 5 TA52
R127	0RD1001F609	1.0K 1/6W 5 TA52
R128	0RD0102F609	10 1/6W 5 TA52
R132	0RD1001F609	1.0K 1/6W 5 TA52
R135	0RD1000F609	100 1/6W 5 TA52
R136	0RD1000F609	100 1/6W 5 TA52
R137	0RD4701F609	4.70K 1/6W 5% TA52
R138	0RD4701F609	4.70K 1/6W 5% TA52
R139	0RD4702F609	47K 1/6W 5 TA52
R207	0RD2200F609	220 1/6W 5 TA52
R208	0RD2200F609	220 1/6W 5 TA52
R209	0RD2200F609	220 1/6W 5 TA52
R210	0RD2200F609	220 1/6W 5 TA52
R216	0RD1800F609	180 1/6W 5 TA52
R217	0RD1000F609	100 1/6W 5 TA52
R221	0RD2200F609	220 1/6W 5 TA52
R239	0RD3000F609	300 1/6W 5 TA52
R262	0RD2201F609	2.2K 1/6W 5 TA52
R263	0RD3000F609	300 1/6W 5 TA52
R265	0RD3000F609	300 1/6W 5 TA52
R267	0RD3000F609	300 1/6W 5 TA52
R277	0RD1000F609	100 1/6W 5 TA52
R305	0RD1001F609	1.0K 1/6W 5 TA52
R306	0RF0181K607	1.80 2W 5% TA62
R307	0RS2200J607	220 1W 5% TA62
R308	0RD1801F609	1.8K 1/6W 5 TA52
R309	0RF0181K607	1.80 2W 5% TA62
R310	0RD0331F609	3.3 1/6W 5 TA52
R311	0RD1002F609	10K 1/6W 5 TA52
R312	0RD1002F609	10K 1/6W 5 TA52
R314	0RD2202F609	22K 1/6W 5 TA52
R315	0RD2200F609	220 1/6W 5 TA52
R316	0RD3001F609	3.0K 1/6W 5 TA52
R318	0RD1801F609	1.8K 1/6W 5 TA52
R401	0RD1002F609	10K 1/6W 5 TA52

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LOCA. NO	PART NO	DESCRIPTION
R403	0RS4701K607	4.70K 2W 5% TA62
R404	0RS0561K607	5.60 2W 5% TA62
⚠ R405	0RS1801K607	1.80K 2W 5% TA62
R406	180-A01B	RW ROUND G 2W 0.11 K
R407	0RD2400H609	240 1/2W 5 TA52
R413	0RD7501F609	7.5K 1/6W 5 TA52
R414	0RD3602F609	36K 1/6W 5 TA52
R415	0RD1000F609	100 1/6W 5 TA52
R416	0RN5602F409	56K 1/6W 1% TA52
R417	0RD4700F609	470 1/6W 5 TA52
R418	0RD3301F609	3.3K 1/6W 5 TA52
R419	0RN1501F409	1.5K 1/6W 1 TA52
R421	0RD2001H609	2.0K 1/2W 5 TA52
R422	0RD1801H609	1.8K 1/2W 5 TA52
R423	0RD2701H609	2.7K 1/2W 5 TA52
R424	0RF0561K607	5.60 2W 5% TA62
R442	0RD1000H609	100 OHM 1/2 W 5%
R443	0RD3301H609	3.3K 1/2W 5 TA52
R454	0RKZVTA001A	2.2M OHM 1/2 W 5%
R461	0RS0221H609	2.2 1/2W 5 TA52
R462	180-C02M	5.6KOHM 1/2 W 10%
R463	0RS1001K607	1K 2W 5% TA62
R464	0RD1003F609	100K 1/6W 5 TA52
R465	0RD1002F609	10K 1/6W 5 TA52
R467	0RD3000F609	300 1/6W 5 TA52
R468	0RD1303F609	130K 1/6W 5 TA52
R469	0RS1801H609	1.8K 1/2W 5 TA52
R470	0RD5601F609	5.6K 1/6W 5 TA52
R471	0RS1002H609	10K 1/2W 5 TA52
R472	0RD4701F609	4.70K 1/6W 5% TA52
R473	0RD6200F609	620 1/6W 5 TA52
R474	0RD1802F609	18K 1/6W 5 TA52
R475	0RD8201F609	8.2K 1/6W 5 TA52
R476	0RD1500F609	150 1/6W 5 TA52
R477	0RD1001F609	1.0K 1/6W 5 TA52
R478	0RD3600F609	360 1/6W 5 TA52
R479	0RS0472J607	47 1W 5% TA62
R484	0RS2202K607	22K 2W 5% TA62
R485	0RS2202K607	22K 2W 5% TA62
R490	180-B01E	RS RECT S 5W 15K J
R499	0RN1001F409	1K 1/6W 1% TA52
R601	0RD1000F609	100 1/6W 5 TA52
R602	0RD0102F609	10 1/6W 5 TA52
R605	0RD1001F609	1.0K 1/6W 5 TA52
R606	0RD1001F609	1.0K 1/6W 5 TA52
R607	0RD1001F609	1.0K 1/6W 5 TA52
R608	0RD1001F609	1.0K 1/6W 5 TA52
R613	0RD1001F609	1.0K 1/6W 5 TA52
R622	0RD1500F609	150 1/6W 5 TA52
R623	0RD1001F609	1.0K 1/6W 5 TA52
R624	0RD6802F609	68K 1/6W 5 TA52
R659	0RD1002F609	10K 1/6W 5 TA52

LOCA. NO	PART NO	DESCRIPTION
R675	0RD0102F609	10 1/6W 5 TA52
R689	0RD1002H609	10K 1/2W 5 TA52
R690	0RD1500H609	150 1/2W 5 TA52
R691	0RD4700H609	470 1/2W 5% TA52
R692	0RD4700H609	470 1/2W 5% TA52
R693	0RD0272F609	27 1/6W 5 TA52
R694	0RD0272F609	27 1/6W 5 TA52
R702	0RD1000F609	100 1/6W 5 TA52
R705	0RD0752F609	75 1/6W 5% TA
R706	0RD0752F609	75 1/6W 5% TA
R707	0RD0752F609	75 1/6W 5% TA
R708	0RD0752F609	75 1/6W 5% TA
R710	0RD4700F609	470 1/6W 5 TA52
R711	0RD0752F609	75 1/6W 5% TA
R713	0RD1800F609	180 1/6W 5 TA52
R714	0RD1001F609	1.0K 1/6W 5 TA52
R715	0RD1001F609	1.0K 1/6W 5 TA52
R801	0RS2702K607	27K 2W 5% TA62
"	0RS2002K607	20K 2W 5% TA62 *W/ST-BY
⚠ R802	180-822M	RWR 15W 1.0 OHM J
R803	0RD1202H609	12K 1/2W 5 TA52
R804	0RS0102K607	10 2W 5% TA62
R805	0RD5100F609	510 1/6W 5 TA52
R806	0RD2001F609	2.0K 1/6W 5 TA52
R807	0RD1001F609	1.0K 1/6W 5 TA52
R808	180-A01C	RW ROUND G 2W 0.12 J
⚠ R809	180-C02B	ERC12UGK475V(UL) RC1/2W 4.7M
R810	0RD2001F609	2.0K 1/6W 5 TA52
R811	0RS0330K607	0.33 2W 5% TA62
R812	0RS0151K607	1.50 2W 5% TA62
R813	0RS0392J607	39 1W 5% TA62
R814	0RD3002H609	30K 1/2W 5 TA52
R815	0RD1202F609	12K 1/6W 5 TA52
R816	0RS0102K607	10 2W 5% TA62
⚠ R824	0RKZVTA001C	8.2M OHM 1/2 W 5%
R825	0RD4701F609	4.70K 1/6W 5% TA52
R831	0RD7501F609	7.5K 1/6W 5 TA52
R835	0RD5100F609	510 1/6W 5 TA52
R838	0RD3901F609	3.9K 1/6W 5 TA52
R840	0RD0680H609	0.68 1/2W 5 TA52
R841	0RD0680H609	0.68 1/2W 5 TA52
R842	0RD4701H609	4.7K 1/2W 5 TA52
R843	0RD1000H609	100 OHM 1/2 W 5%
R844	0RD1001F609	1.0K 1/6W 5 TA52
R851	0RS0392K607	39 2W 5% TA62
R852	0RS1002J607	10K 1W 5% TA62
R853	0RD1001H609	1K OHM 1/2 W 5%
R854	0RD1002F609	10K 1/6W 5 TA52
R855	0RD4701F609	4.70K 1/6W 5% TA52
R856	0RD1502F609	15K 1/6W 5 TA52
R857	0RS2702K607	27K 2W 5% TA62
"	0RS2002K607	20K 2W 5% TA62 *W/ST-BY

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LOCA. NO	PART NO	DESCRIPTION
R860	0RD4701F609	4.7K 1/6W 5 TA52
R861	0RD2201F609	2.2K 1/6W 5 TA52
R862	0RD2201F609	2.2K 1/6W 5 TA52
R863	0RD1502H609	15K 1/2W 5 TA52
R903	0RD1301F609	1.3K 1/6W 5 TA52
R904	0RD7500F609	750 1/6W 5 TA52
R906	0RD2003H609	200K 1/2W 5 TA52
R908	0RD1001F609	1.0K 1/6W 5 TA52
R909	0RD2401F609	2.4K 1/6W 5 TA52
R910	0RS5602K607	56K 2W 5% TA62
R911	0RS4700H609	470 1/2W 5 TA52
R913	0RD1001F609	1.0K 1/6W 5 TA52
R914	0RD2401F609	2.4K 1/6W 5 TA52
R915	0RS5602K607	56K 2W 5% TA62
R916	0RS4700H609	470 1/2W 5 TA52
R918	0RD1001F609	1.0K 1/6W 5 TA52
R919	0RD2401F609	2.4K 1/6W 5 TA52
R920	0RS5602K607	56K 2W 5% TA62
R921	0RS4700H609	470 1/2W 5 TA52
R926	0RD6800F609	680 1/6W 5 TA52
R927	0RD9101F609	9.1K 1/6W 5 TA52
R928	0RD3001F609	3.0K 1/6W 5 TA52
R1204	0RD2403F609	240K 1/6W 5 TA52
R1206	0RD0752F609	75 1/6W 5% TA
R1208	0RD2403F609	240K 1/6W 5 TA52
R1212	0RD0752F609	75 1/6W 5% TA
R1292	0RD0752F609	75 1/6W 5% TA
R2001	0RF0102J607	10 1W 5% TA62
⚠ R2002	0RF1000H609	100 1/2W 5 TA52
R2003	0RD0332H609	33 1/2W 5 TA52
R2004	0RD0391H609	3.9 1/2W 5 TA52
R2005	0RD0332H609	33 1/2W 5 TA52
R2006	0RD1201H609	1.2K 1/2W 5 TA52
R2007	0RD1501H609	1.5K 1/2W 5 TA52
R2008	0RD2001H609	2.0K 1/2W 5 TA52
R2009	0RD1501H609	1.5K 1/2W 5 TA52
R2010	0RD0391H609	3.9 1/2W 5 TA52
R2011	0RS8200J607	820 1W 5% TA62
R2012	0RS8200J607	820 1W 5% TA62
R2013	0RD2202F609	22K 1/6W 5 TA52
R2014	0RD3001F609	3.0K 1/6W 5 TA52
R2015	0RD0222F609	22 1/6W 5 TA52
R2016	0RD3001F609	3.0K 1/6W 5 TA52
R2017	0RD5101F609	5.1K 1/6W 5 TA52
R2018	0RD5601F609	5.6K 1/6W 5 TA52
R2019	0RD3001F609	3.0K 1/6W 5 TA52
R2020	0RD1600F609	160 1/6W 5 TA52
R2021	0RD0822F609	82 1/6W 5% TA
R2022	0RD0102F609	10 1/6W 5 TA52
R2023	0RD0822F609	82 1/6W 5% TA
R2024	0RD1500F609	150 1/6W 5 TA52
R2025	0RD1500F609	150 1/6W 5 TA52

LOCA. NO	PART NO	DESCRIPTION
R2026	0RD1000F609	100 1/6W 5 TA52
R2027	0RD1202F609	12K 1/6W 5 TA52
R2028	0RD5602F609	56K 1/6W 5 TA52
R2029	0RD5602H609	56K 1/2W 5 M15
R2030	0RD1000F609	100 1/6W 5 TA52
R2031	0RD3000F609	300 1/6W 5 TA52
R2032	0RD3000F609	300 1/6W 5 TA52
R3001	0RD1202F609	12K 1/6W 5 TA52
R3002	0RD2202F609	22K 1/6W 5 TA52
R3003	0RD1001F609	1.0K 1/6W 5 TA52
R3004	0RD0472H609	47 1/2W 5 TA52
R3006	0RD1000F609	100 1/6W 5 TA52
R3008	0RD1002F609	10K 1/6W 5 TA52
RP28	0RD1000F609	100 1/6W 5 TA52
RP29	0RD1000F609	100 1/6W 5 TA52
RP30	0RD1201F609	1.2K 1/6W 5 TA52
RP45	0RD0271H609	2.7 1/2W 5 TA52
RP60	0RD4702F609	47K 1/6W 5 TA52
RP63	0RD1000F609	100 1/6W 5 TA52
RP65	0RD3901F609	3.9K 1/6W 5 TA52
RP73	0RD2200F609	220 1/6W 5 TA52
RP75	0RD2200F609	220 1/6W 5 TA52
RP77	0RD2200F609	220 1/6W 5 TA52
RP78	0RD2200F609	220 1/6W 5 TA52
RP80	0RD1000F609	100 1/6W 5 TA52
RP82	0RD1000F609	100 1/6W 5 TA52
RP83	0RD1000F609	100 1/6W 5 TA52
RP86	0RS0102K607	10 2W 5% TA62
RP87	0RS0152K607	15 2W 5% TA62
RP90	0RD1000F609	100 1/6W 5 TA52
VR101	180-F03H	EVN-DJAA03 B14
VR102	180-F03H	EVN-DJAA03 B14

SPARK GAP

SG901	165-004A	SPARK GAP,AG20PT 152F-L3N/S-23
SG902	165-004A	SPARK GAP,AG20PT 152F-L3N/S-23
SG903	165-004A	SPARK GAP,AG20PT 152F-L3N/S-23
SG904	165-004A	SPARK GAP,AG20PT 152F-L3N/S-23

FILTER & CRYSTAL

⚠ T801	150-F06U	FILTER(CIRC),LINE SQE3535 27.5MH
⚠ T802	150-F06U	FILTER(CIRC),LINE SQE3535 27.5MH
X501	6202VDB007B	CRYSTAL,STANDARD HC49U 20.250MHZ
X502	6202VDB007A	CRYSTAL,STANDARD HC49U 5.000MHZ
X601	156-A02M	CRYSTAL,STANDARD HC49U 18.432MHZ
X701	6202VDB007B	CRYSTAL,STANDARD HC49U 20.250MHZ
XP1	156-A01V	CRYSTAL,STANDARD HC49U 4.433619MHZ
XP2	156-A01C	CRYSTAL,STANDARD HC49U 3.579545MHZ
XP3	156-A02H	CRYSTAL,STANDARD HC49U 20.480MHZ
Z101	166-A01B	FILTER,OFWK3953M SIEMENS 37.4MHZ
Z102	166-A01B	FILTER,OFWK3953M SIEMENS 37.4MHZ
Z103	6200VQS001G	FILTER(CIRC),SAW OFWK9350M 38.9MHZ

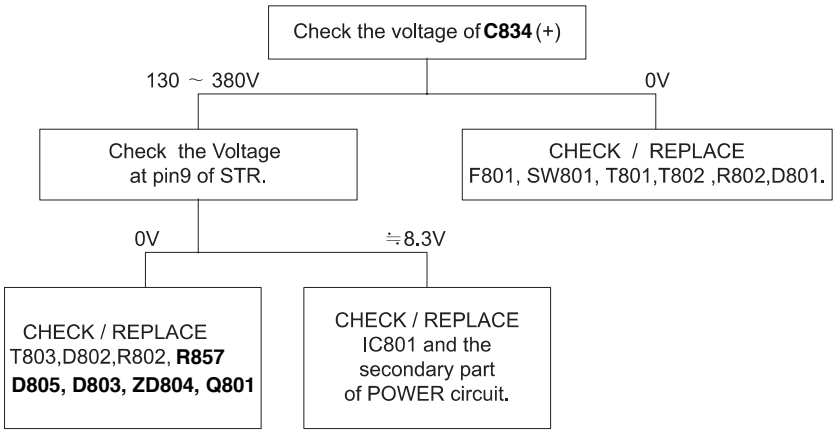
The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
Z104	166-A01U	FILTER (CIRC),SAW OFWL9454M 40.4MHZ
Z106	166-C06D	FILTER(CIRC),TRAP MKT40.4MA110P-TF01
Z107	166-C06D	FILTER(CIRC),TRAP MKT40.4MA110P-TF01
Z109	166-F01G	FILTER,DSS306-93FZ103N MURATA 100V
Z110	166-F01G	FILTER,DSS306-93FZ103N MURATA 100V
Z113	166-F01D	FILTER,DSS306-93Y5S271M MURATA 50V
Z210	166-C02E	FILTER(CIRC),TPS6.5MB-TF21
Z211	166-C04B	FILTER(CIRC),TRAP TPWA03B-TF21
Z501	166-F01D	FILTER,DSS306-93Y5S271M MURATA 50V
ACCESSORIES		
A1	3828VA0209B	MANUAL,OWNERS DG/32Q10 LG
A1	3828VA0209D	MANUAL,OWNERS UK/32Q10 EN
A1	3828VA0203G	MANUAL,OWNERS ES LG SP/PO
A1	3828VA0209J	MANUAL,OWNERS FS/32Q10 LG FR 026C TX
A2	6710V00026H	REMOTE CONTROLLER(W/PIP) SILVER LG
MISCELLANEOUS		
PS1	6908VB0001A	BUZZER,PIEZO ELECTRIC PKM13EPY-4002
RL801	141-018E	RELAY,DG12D1-0(M)-2 12V44MA
RL802	141-018F	RELAY,DG5D1-0-2
⚠ SK901	6620VBD001A	SOCKET (CIRC),CPT PCS701A 9P
⚠ SW801	6600VM2001A	SWITCH,PUSH POWER SDDFC3
⚠ TH801	163-054F	THERMISTOR,PTC J502P84D140M290Q
TU101	6700VPF005A	TUNER,TU8PSD01DB PAL DIN BG/L
"	6700VPF005C	TUNER,TAEC-G022D
VGA01	6630VGA001B	CONNECTOR (CIRC),68114-1522
X01	166-E09C	RESONATOR,CSA16.0MXZ040 16.0MHZ
ZN1101	164-003K	VARISTOR SVC621D-14A 620V

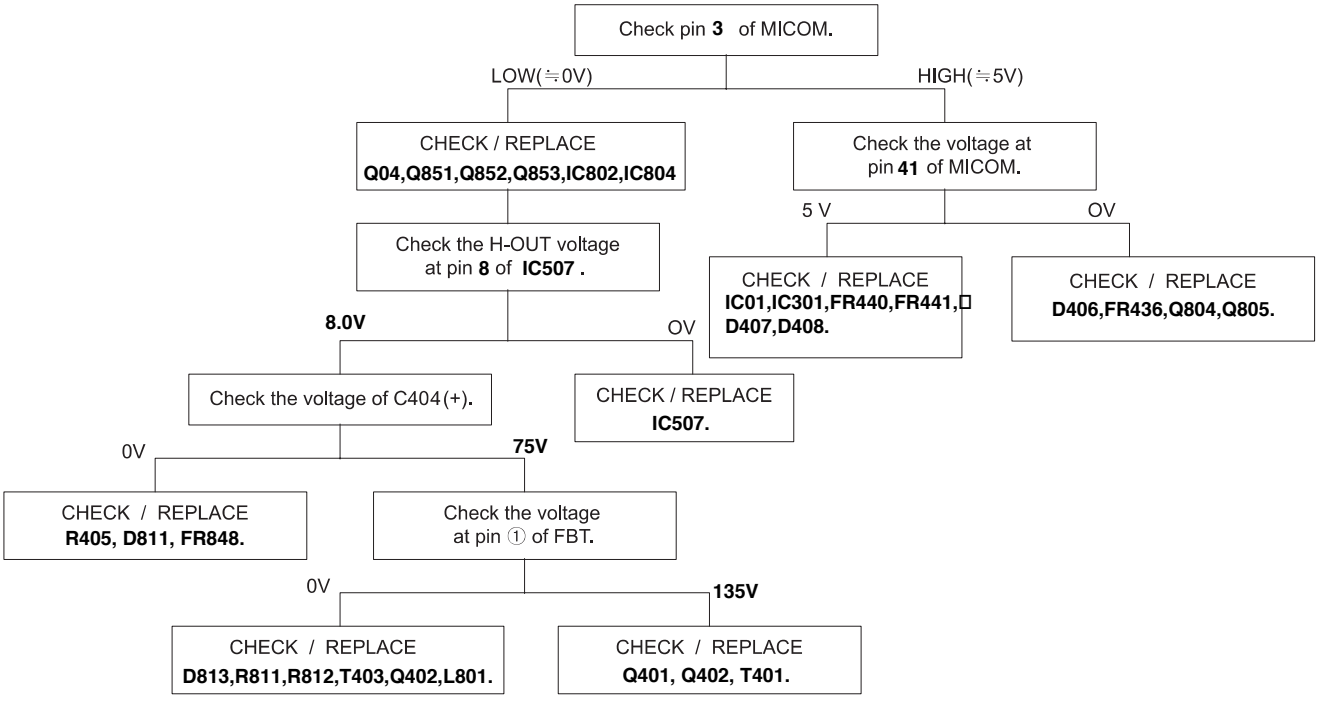
LOCA. NO	PART NO	DESCRIPTION

TROUBLESHOOTING GUIDE

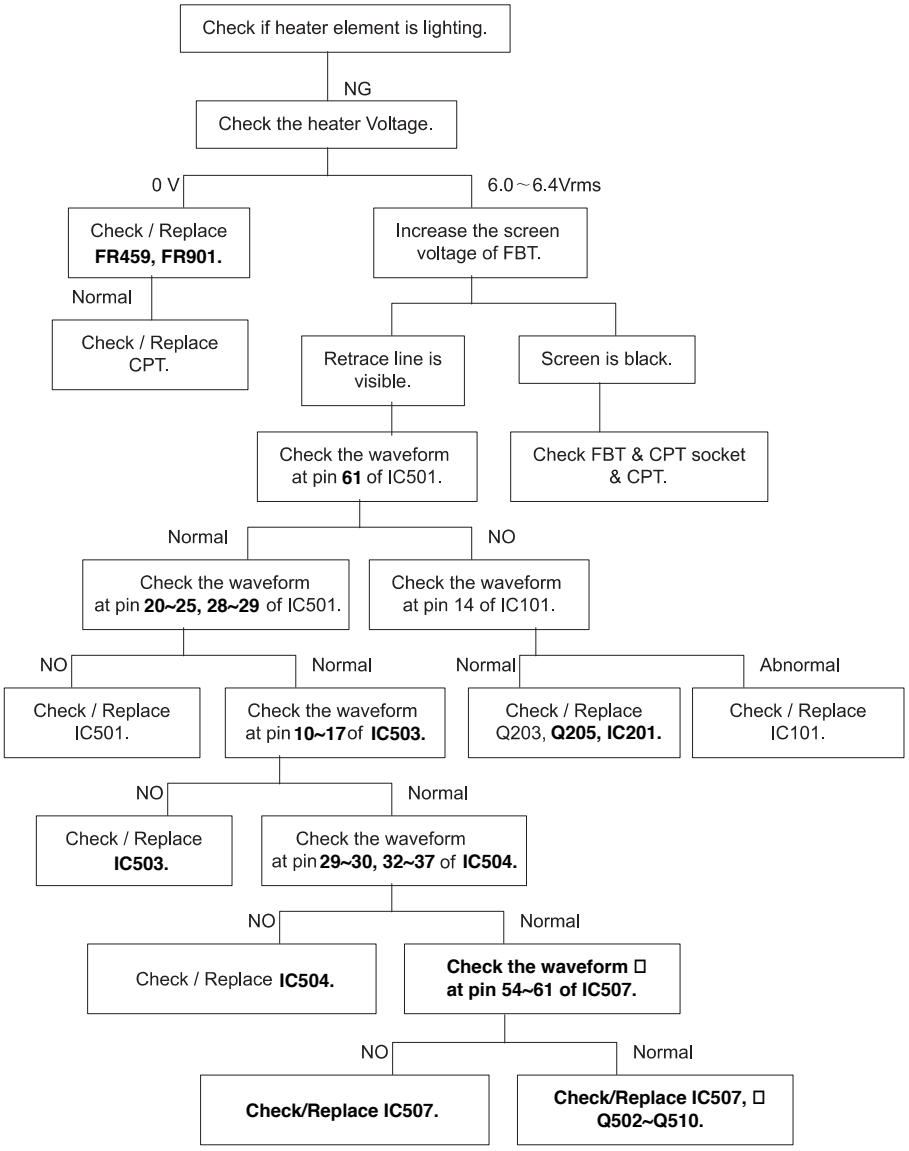
NO POWER (NOT WORKING SMPS)


Check the voltage of C834 (+)
130 ~ 380V
0V
Check the Voltage at pin9 of STR.
CHECK / REPLACE F801, SW801, T801,T802 ,R802,D801.
0V
≒8.3V
CHECK / REPLACE T803,D802,R802, R857 D805, D803, ZD804, Q801
CHECK / REPLACE IC801 and the secondary part of POWER circuit.

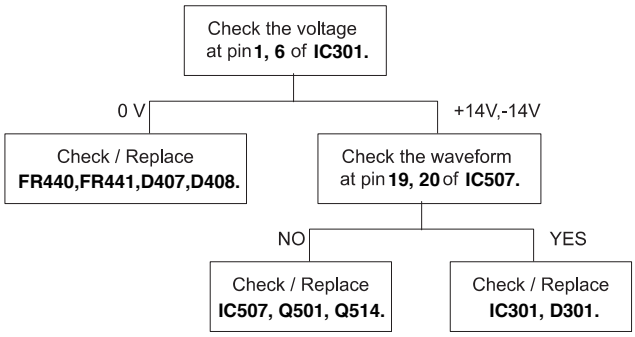
NO POWER ON BUT SMPS WORKING



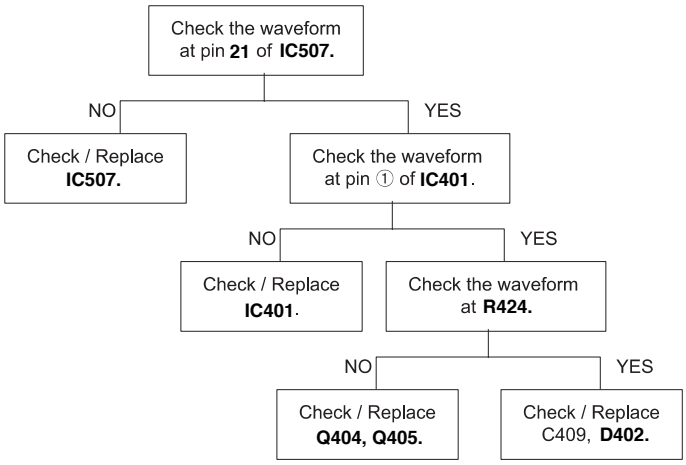
NO RASTER & PICTURE (H-OUT OK)



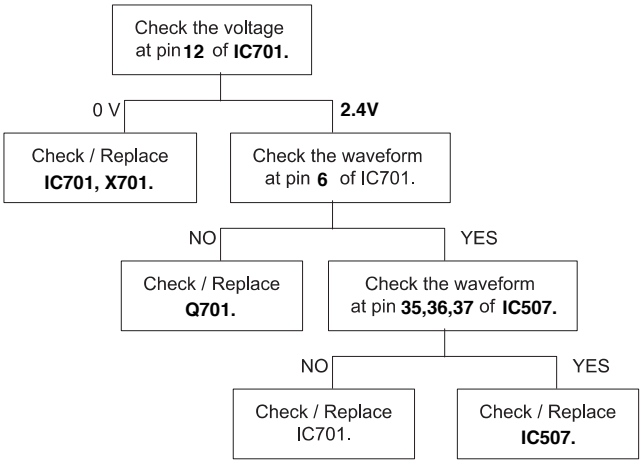
NO VERTICAL DEFLECTION


Check the voltage at pin 1, 6 of IC301.
0 V
+14V,-14V
Check / Replace FR440,FR441,D407,D408.
Check the waveform at pin 19, 20 of IC507.
NO
YES
Check / Replace IC507, Q501, Q514.
Check / Replace IC301, D301.

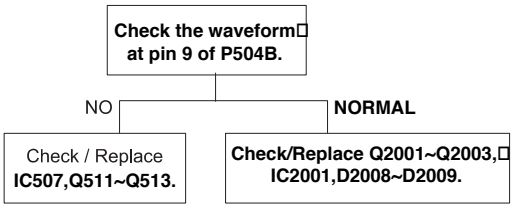
PIN CUSHION DISTORTION



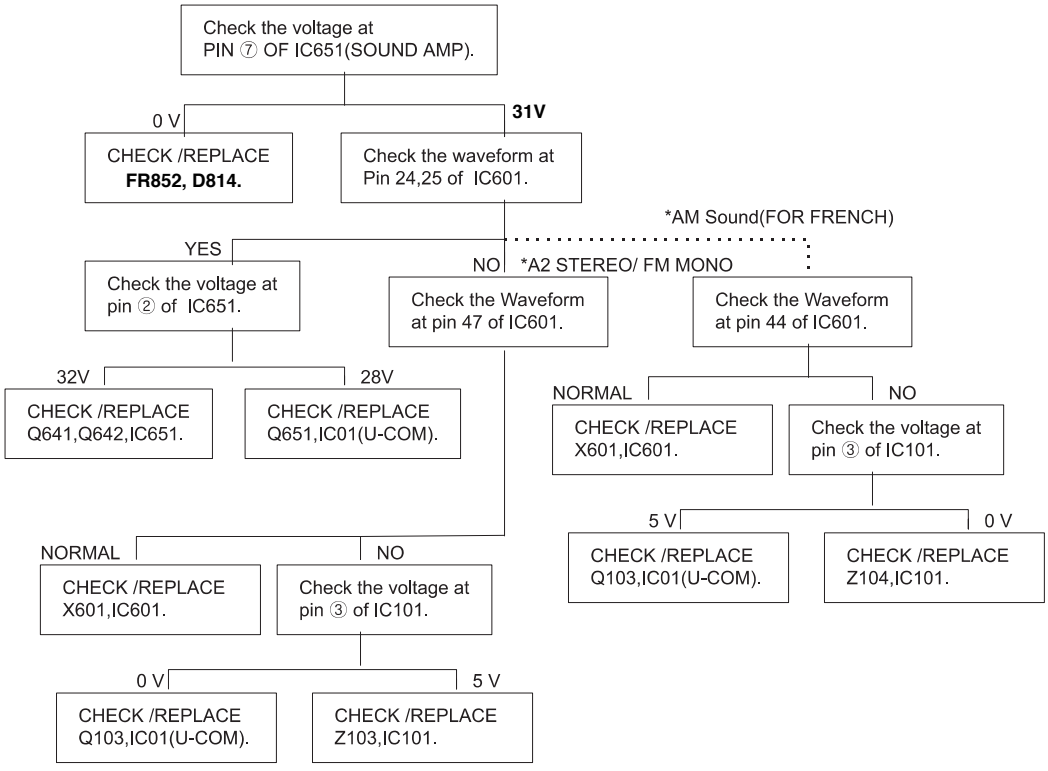
NO TELETEXT



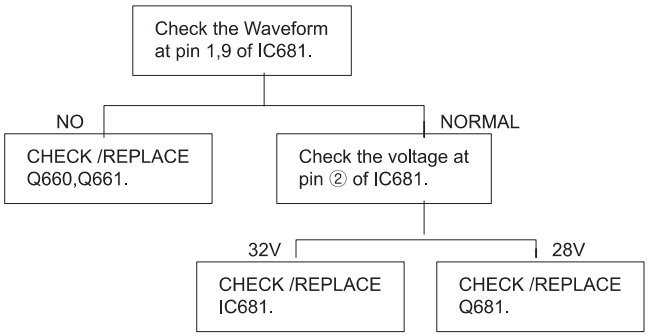
VM DON T WORKING



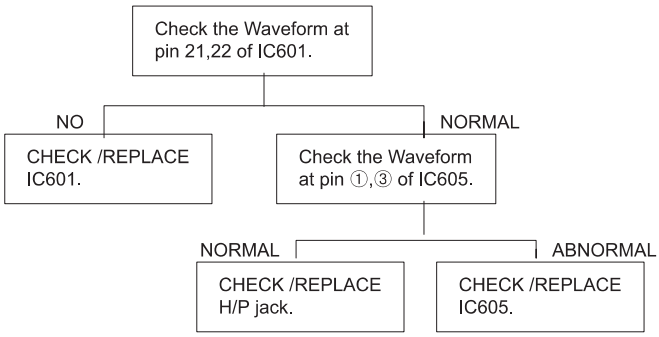
NO SOUND(PICTURE OK)



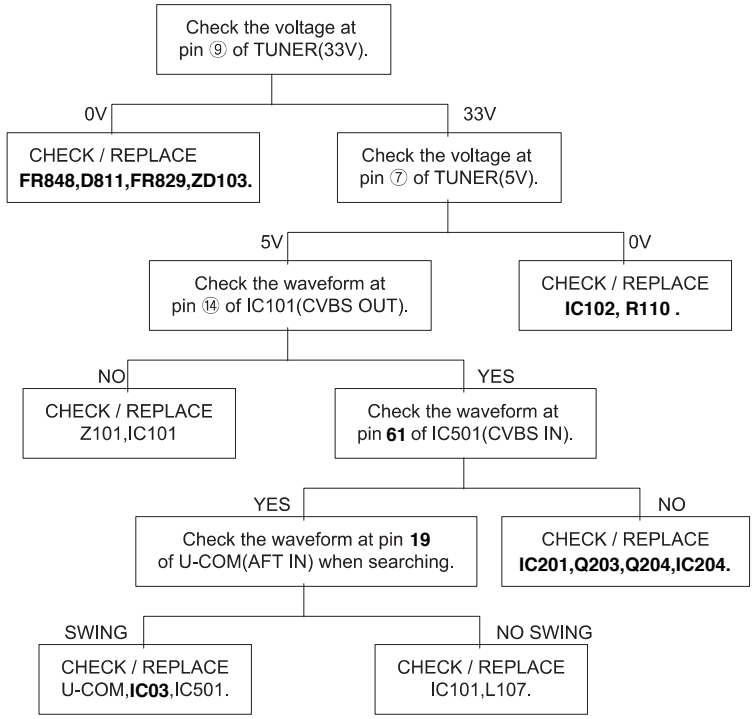
NO SOUND FROM SQUITTER Speaker(OPTION)
(but Main Sound OK)



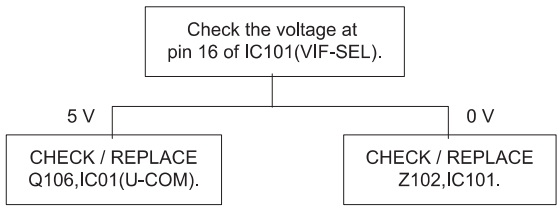
NO SOUND FROM H/P jack(OPTION)
(but Main Sound OK)



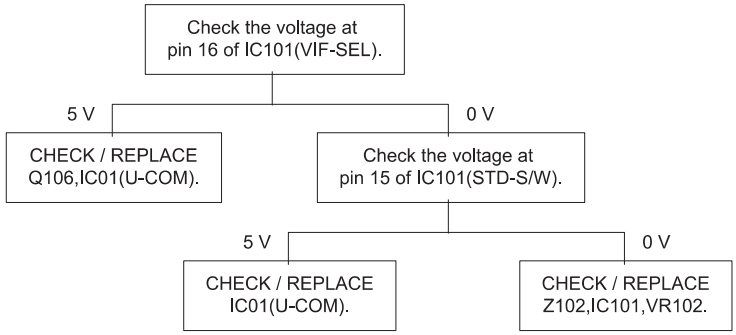
DON T CATCH CHANNEL



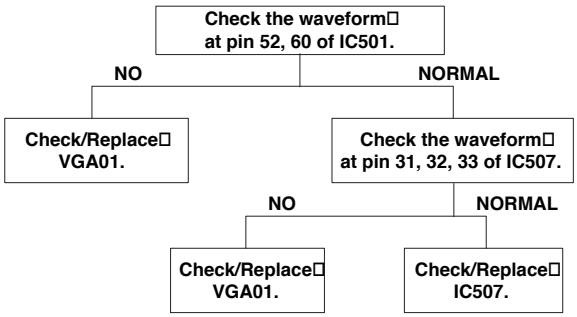
DON T CATCH NTSC-M (OPTION)



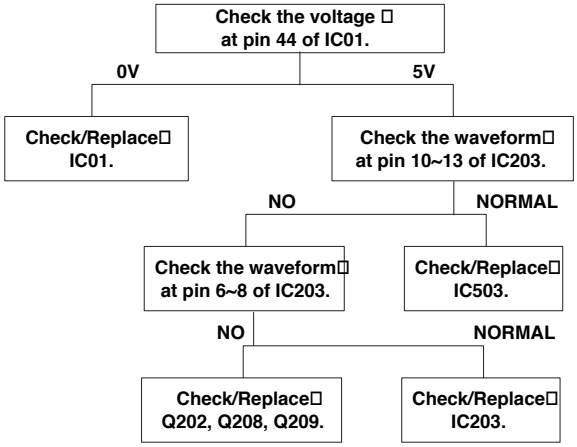
DON T CATCH SECAM-L (OPTION)


Check the voltage at pin 16 of IC101(VIF-SEL).
5 V
0 V
CHECK / REPLACE Q106,IC01(U-COM).
Check the voltage at pin 15 of IC101(STD-S/W).
5 V
0 V
CHECK / REPLACE IC01(U-COM).
CHECK / REPLACE Z102,IC101,VR102.

NO VGA



NO COMPONENT



Colour Television

OWNER'S MANUAL

Please read this manual carefully before operating your set.
Retain it for future reference.
Record model number and serial number of the set.
See the label attached on the back cover and quote this information to your dealer when you require service.

Model number :
Serial number :

FOR THE GUARANTEE TERMS & CONDITIONS,
PLEASE REFER TO BACK COVER OF THIS MANUAL

P/NO : 3828VA0209D (MC993A, 026H TX)
(3840VA0024A/B, 3840VA0016A, 373-026F)

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Installation

Power

This set operates on an AC mains supply, the voltage is as indicated on the label on the back cover. Never apply DC power to the set. In the event of thunderstorms or powercuts, please pull out the aerial and mains plugs.

Warning

To prevent fire or shock hazard, do not expose the set to rain or moisture.

Wiring (in U.K. only)

This set is supplied with a BS 1363 approved 13 amp mains plug, fused at 5 amp. When replacing the fuse always use a 5 amp BS 1362, BSI or ASTA approved type. Never use this plug with the fuse cover omitted. To obtain a replacement fuse cover contact your dealer or “LG Electronics U.K. Ltd.”

If the type of plug supplied is not suitable for the mains sockets in your home, then the plug should be removed and a suitable type fitted. Please refer to the wiring instructions below:

Warning (in U.K. only)

A mains plug removed from the mains lead of this set must be destroyed. A mains plug with bared wires is hazardous if inserted in a mains socket.

Do not connect either wire to the earth pin, marked with the letter E or with the earth symbol ⏚ or coloured green or green and yellow.

If any other plug is fitted, use a 5 amp fuse, either in the plug, or at the distribution board.

Important (in U.K. only)

The wires in this mains lead are coloured in accordance with the following codes:

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this set may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Service

Never remove the back cover of the set as this can expose you to very high voltage and other hazards. If the set does not operate properly, unplug it and call your dealer.

Aerial

Connect the aerial cable to the socket marked ⟟75 Ω on the back cover. For the best reception an outdoor aerial should be used.

Location

Position your set so that no bright light or sunlight falls directly onto the screen. Care should be taken not to expose the set to any unnecessary vibration, moisture, dust or heat. Also ensure that the set is placed in a position to allow a free flow of air. Do not cover the ventilation openings on the back cover.

Location and function of controls

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.

Remote control handset

Before you use the remote control handset, please install the batteries. See the next page.

1. **POWER**
   switches the set on from standby or off to standby.

2. **MUTE**
   switches the sound on or off.

3. **ARC (Aspect Ratio Control)**
   changes the picture format.

4. **TV/AV**
   selects TV or AV mode.
   clears the menu from the screen.
   switches the set on from standby.

5. **EYE/✱**
   switches the eye function on or off.

6. **TURBO PICTURE**
   selects Turbo picture.
   TURBO SOUND
   selects Turbo sound.

7. **▲ / ▼ (Programme Up/Down)**
   selects a programme or a menu item.
   switches the set on from standby.
   ◀ / ▶ (Volume Up/Down)
   adjusts the volume.
   adjusts menu settings.
   OK
   accepts your selection or displays the current mode.

8. **NUMBER BUTTONS**
   switches the set on from standby or directly selects a programme number.

9. **PSM (Picture Status Memory)**
   recalls your preferred picture setting.

10. **SSM (Sound Status Memory)**
    recalls your preferred sound setting.

Location and function of controls

11. DUAL (I/II)
selects the language during dual language broadcast.
selects mono sound during stereo broadcast.

12. LIST
displays the programme table.

13. PIP BUTTONS (option)

PIP
switches the sub picture on or off.
PR +/– (option)
selects a programme for the sub picture.
SWAP
alternates main and sub picture.
INPUT
selects the input mode for the sub picture.
SIZE
adjusts the sub picture size.
STILL
freezes motion of the sub picture.
POSITION
relocates the sub picture in clockwise direction.
9/4PIP
switches on or off the 9 or 4 sub pictures.

14. MENU
selects a menu.

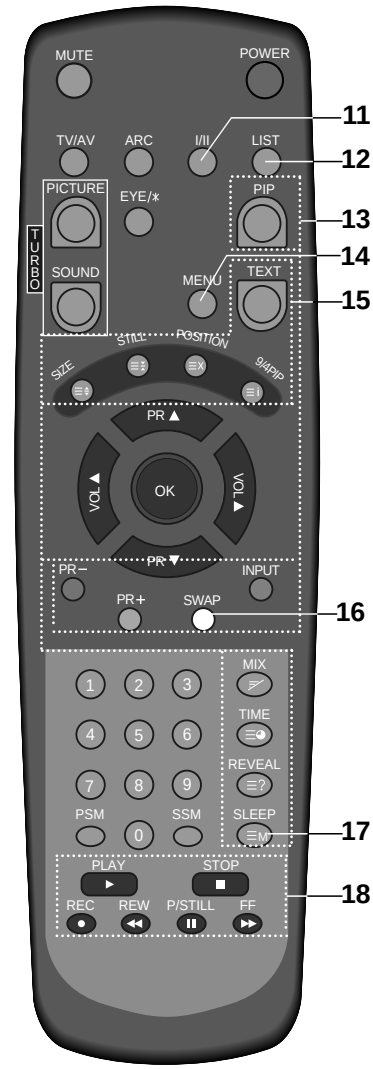
15. TELETEXT BUTTONS (option)
These buttons are used for teletext.
For further details, see the 'Teletext' section.

16. SWAP
returns to the previously viewed programme.

17. SLEEP
sets the sleep timer.

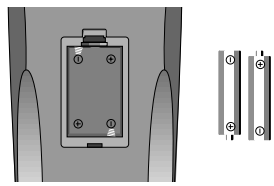
18. VCR BUTTONS
controls a LG video cassette recorder.

Note : *In teletext mode, the **PR +/–**, **SWAP** and **INPUT** buttons are used for teletext function.*



Battery installation

The remote control handset is powered by two AAA type batteries. Gently pull down the cover of the remote control handset until the battery compartment is exposed. Install two batteries as indicated by the polarity symbols (⊕ and ⊖) marked inside the compartment.

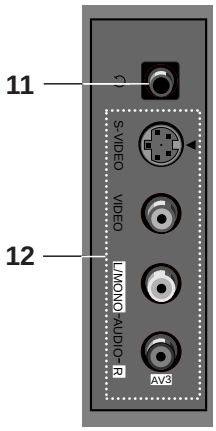


Note : *To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time.*

Location and function of controls

Front panel

You can use the front panel buttons just by touching soft instead of pressing them (except the main power button).



Side panel

1. **MAIN POWER (POWER ⏻)**
   switches the set on or off.

2. **POWER/STANDBY INDICATOR**
   illuminates red when the set is in standby mode and green when the set is switched on.

3. **POWER**
   switches the set on from standby or off to standby.

4. **▲ / ▼ (Programme Up/Down)**
   selects a programme or a menu item.
   switches the set on from standby.

   ◄ / ► (Volume Up/Down)
   adjusts the volume.
   adjusts menu settings.

   OK
   accepts your selection or displays the current mode.

5. **MENU**
   selects a menu.

6. **TV/AV**
   selects TV or AV mode.
   clears the menu from the screen.
   switches the set on from standby.

7. **TURBO PICTURE/SOUND**
   selects Turbo picture or Turbo sound.

8. **EYE**
   adjusts picture according to the surrounding conditions.

9. **REMOTE CONTROL SENSOR**

10. **SWIVEL BASE**
    turns the TV set by hand to left or right direction by 15 degrees.

11. **HEADPHONE SOCKET**
    connects the headphone plug to this socket.

12. **AUDIO/VIDEO IN SOCKETS (AV3)**
    connects the audio/video out sockets of external equipment to these sockets.

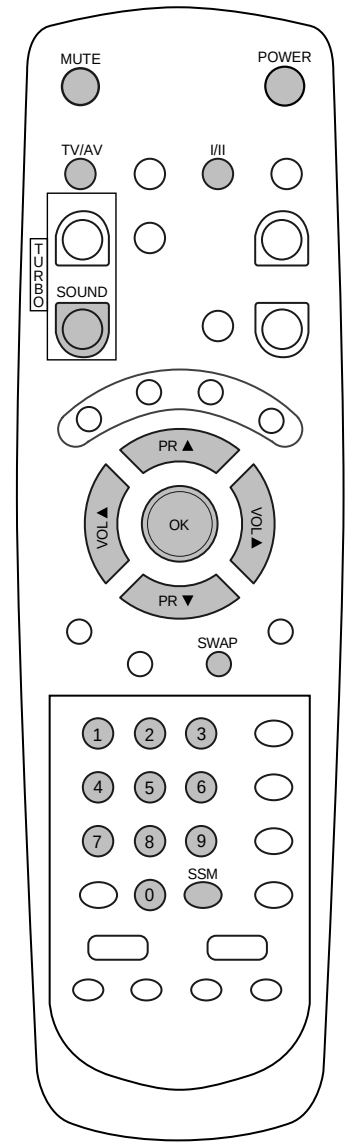
    S-VIDEO/AUDIO IN SOCKETS (S-AV)
    connects the video out socket of an S-VIDEO VCR to the **S-VIDEO** socket.
    connects the audio out sockets of the S-VIDEO VCR to the audio sockets as in **AV3**.

Basic operation

On and off

1. Press the main power button to switch the set on.
2. If the set is in standby mode, press the **POWER**, **▲ / ▼**, **TV/AV** or NUMBER buttons on the remote control handset to switch it on fully.
3. Press the **POWER** button on the remote control handset. The set reverts to standby mode.
4. Press the main power button again to switch the set off.

Note : *If the mains plug is disconnected while the set is switched on, the set will be switched to standby mode. And when the mains plug is replaced in the mains power socket again, the power is switched on again.*



Programme selection

You can select a programme number with the **▲ / ▼** or NUMBER buttons.

Volume adjustment

Press the **◄ / ►** button to adjust the volume.

Quick view

Press the **SWAP** button to view the last programme you were watching.

Mute function

Press the **MUTE** button. The sound is switched off and the display 🔇 appears.
You can cancel it by pressing the **MUTE**, **◄ / ►**, **SSM**, **I/II**, **TURBO SOUND** button.

Auto demonstration

To review all the menus programmed in the set, press the **OK** button of the front panel control for about 5 seconds. To stop auto demonstration, press any button of the front panel control and **POWER** button of the remote control handset.

On screen language selection

The menu can be displayed on the screen in desired language. First select your language.

1. Press the **MENU** button to select the Station menu.
2. Press the **▲ / ▼** button to select **Language**.
3. Press the **OK** button.
4. Press the **▲ / ▼** button to select your desired language.
5. Press the **OK** button.
   All the on screen displays will appear in the selected language.
6. Press the **TV/AV** button to return to normal TV viewing.

On screen menus

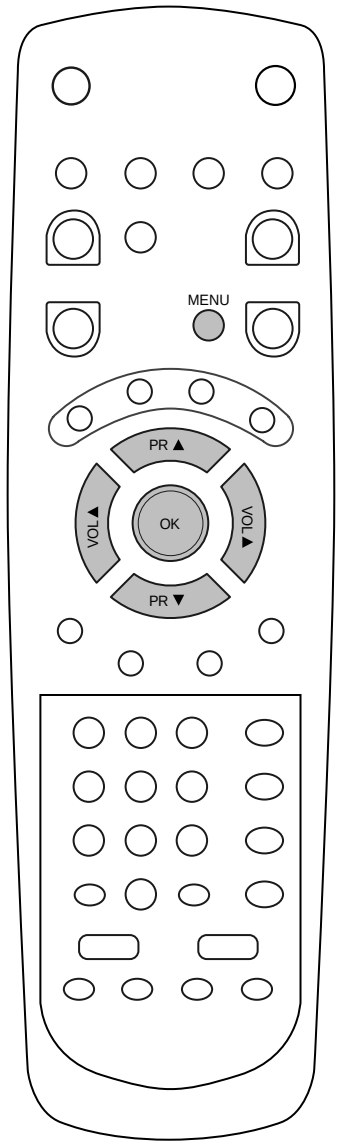
The dialogue between you and your set takes place on screen with an operator menu. The buttons required for the operating steps are also displayed.

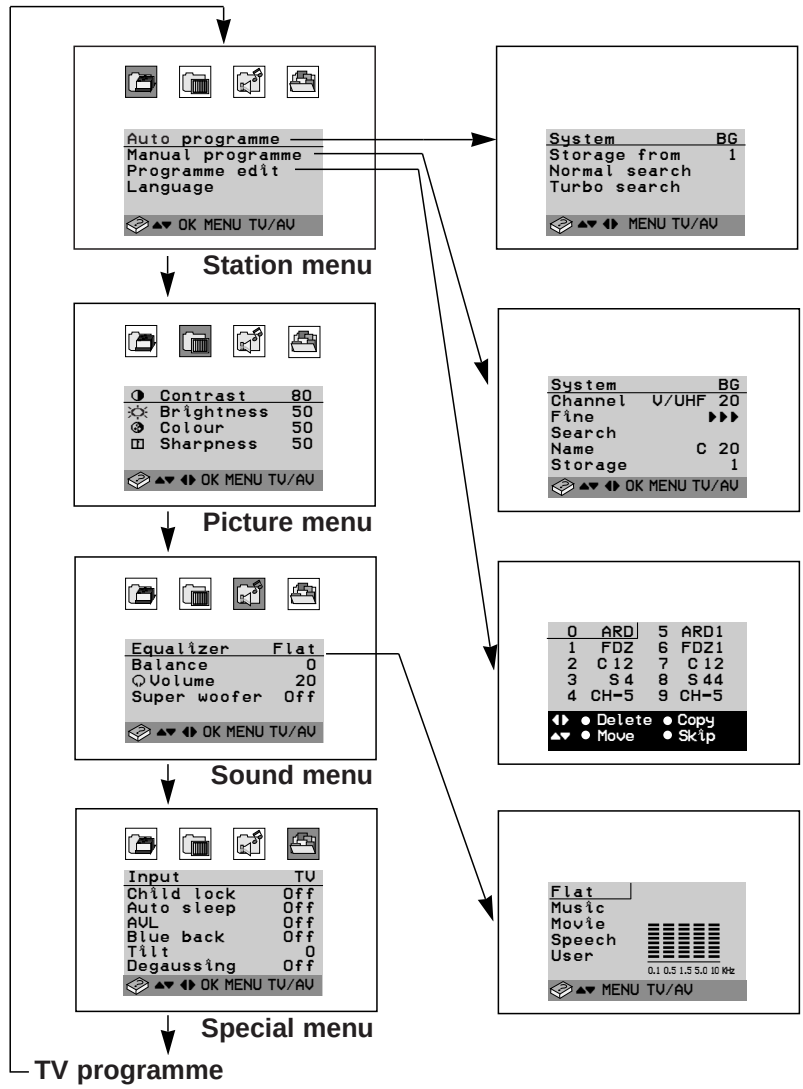
Menu selection

1. Repeatedly press the **MENU** button to display each menu.
2. Press the ▲ / ▼ button to select a menu item.
   The selected menu item changes from green to purple.
3. Press the ◄ / ► button to change the setting of a menu item or **OK** button to display the sub menu.

Note :

a. In the AV mode, the Station menu is not displayed.
b. In the teletext mode, menus are not displayed.
*c. In some models, the **Normal/Turbo search** will not display, only the **Start** will display in the **Auto programme** menu.*





Setting up TV stations

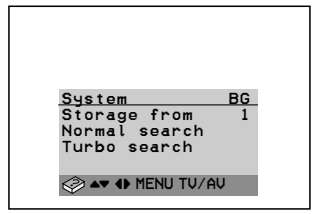
Up to 100 TV stations can be stored in this set by programme numbers (0 to 99). Once you have preset the stations, you will be able to use the ▲ / ▼ or NUMBER buttons to scan the stations you programmed. Stations can be tuned using automatic or manual modes.

Station Menu

Auto programme tuning

All stations that can be received are stored by this method. It is recommended that you use auto programme during installation of this set.

1. Repeatedly press the **MENU** button to select the Station menu.
2. Press the ▲ / ▼ button to select **Auto programme**.
3. Press the **OK** button to display the **Auto programme** menu.



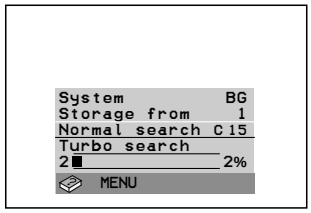
4. Press the ▲ / ▼ button to select **System**. Select a TV system with the ◄ / ► button ;
   LL : SECAM L/L' (France: SECAM-L models only)
   BG : PAL B/G, SECAM B/G (Europe/East Europe)
   I : PAL I/II (U.K./Ireland)
   DK : PAL D/K, SECAM D/K (East Europe)
5. Press the ▲ / ▼ button to select **Storage from**.
6. Select the beginning programme number with the ◄ / ► button or NUMBER buttons. Any number under 10 is entered with a numeric **'0'** in front of it, i.e. **'05'** for 5.
7. Press the ▲ / ▼ button to select **Normal** or **Turbo search**.

   Option: In some models, only can select **Start**.

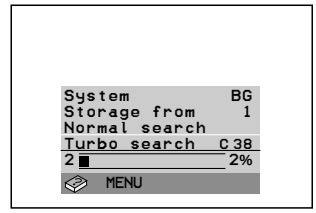
Note :

*a. **Turbo search** is further faster than **Normal search** and in some models, these searches will automatically store all receivable stations.*

*b. If the programmed station has poor quality sound, select the system again in the **Manual programme** menu.*



(Normal search)



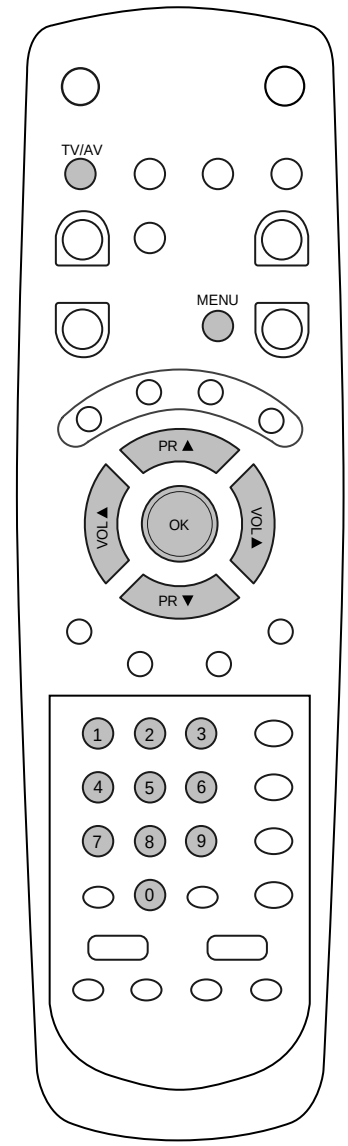
(Turbo search)

8. Press the **OK** button to begin auto programming.

   All receivable stations are stored. The station name is stored for stations which broadcast VPS (Video Programme Service), PDC (Programme Delivery Control) or TELETEXT data. If no station name can be assigned to a station, the channel number is assigned and stored as **C** (V/UHF 01-69) or **S** (Cable 01-47), followed by a number.

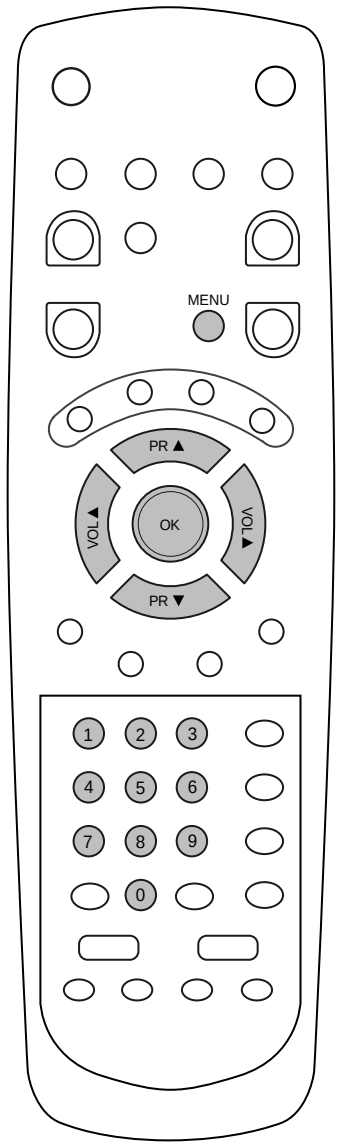
   To stop auto programming, press the **MENU** button.
   When auto programming is completed, the **Programme edit** menu appears on the screen. See the 'Programme edit' section to edit the stored programme.

9. Press the **TV/AV** button to return to normal TV viewing.



Setting up TV stations

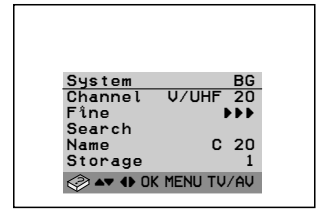
Station Menu



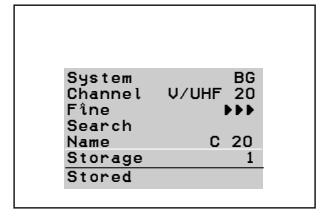
Manual programme tuning

Manual programme lets you manually tune and arrange the stations in whatever order you desire. Also you can assign a station name with five characters to each programme number.

1. Repeatedly press the **MENU** button to select the Station menu.
2. Press the ▲ / ▼ button to select **Manual programme**.
3. Press the **OK** button to display the **Manual programme** menu.



4. Press the ▲ / ▼ button to select **System**. Select a TV system with the ◄ / ► button ;
   LL : SECAM L/L' (France: SECAM-L models only)
   BG : PAL B/G, SECAM B/G (Europe/East Europe)
   I : PAL I/II (U.K./Ireland)
   DK : PAL D/K, SECAM D/K (East Europe)
5. Press the ▲ / ▼ button to select **Channel**. Press the ◄ / ► button to select **V/UHF** or **Cable** as required.
   If possible, select the channel number (1 to 69) directly with the number buttons. Any number under 10 is entered with a numeric **'0'** in front of it, i.e. **'05'** for 5.
6. Press the ▲ / ▼ button to select **Search**. Press the ◄ / ► button to commence searching. If a station is found the search will stop.
7. If this station is the one required, press the ▲ / ▼ button to select **Storage**. Select the desired programme number (0 to 99) with the ◄ / ► button or NUMBER buttons. Any number under 10 is entered with a numeric **'0'** in front of it, i.e. **'05'** for 5.
8. Press the **OK** button to store it. The display **Stored** will appear.



9. To store another station, repeat steps 4 to 8.

Assigning a station name

1. Repeat the 'Manual programme tuning' steps 1 to 3.
2. Press the ▲ / ▼ button to select **Name**.
3. Press the ► button. You can use a blank, **+**, **-**, the numeric **0** to **9** and the alphabet **A** to **Z**.
   With the ◄ button you can select in the opposite direction.
4. Select the next position by pressing the **OK** button and then take your choice of the second character, and so on.
5. Repeat the 'Manual programme tuning' steps 7 to 8.

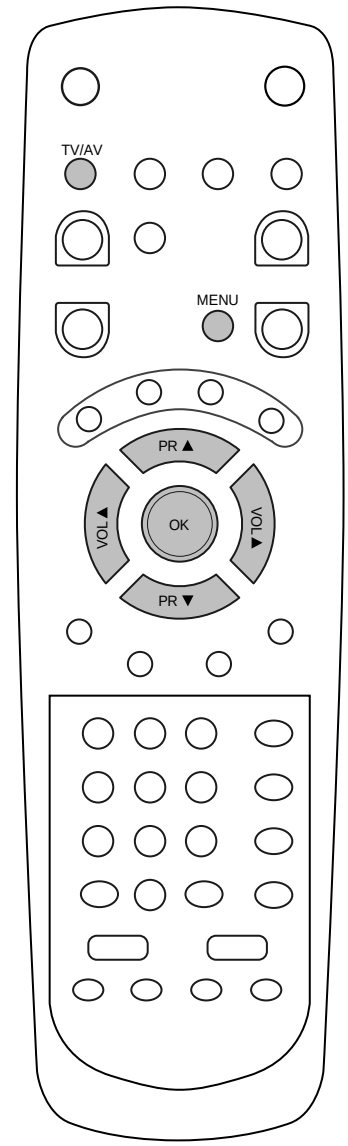
Setting up TV stations

Fine tuning

Station Menu

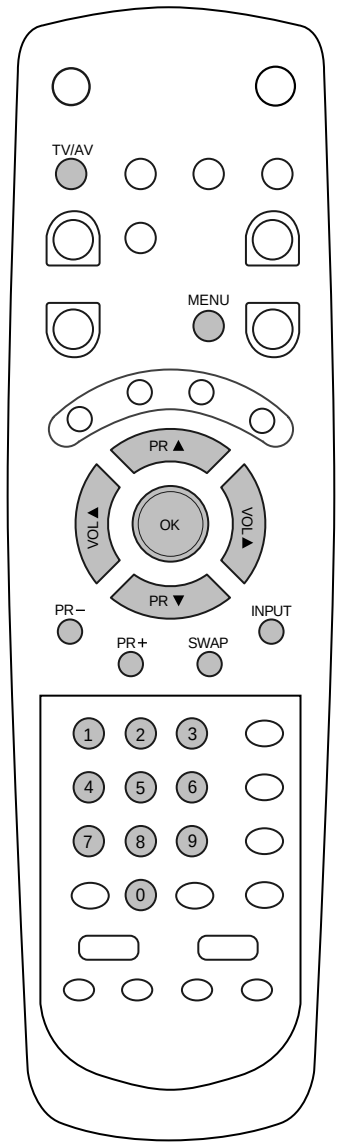
Normally fine tuning is only necessary if reception is poor.

1. Repeat the ‘Manual programme tuning’ steps 1 to 3.
2. Press the ▲ / ▼ button to select **Fine**.
3. Press the ◄ / ► button to fine tune for the best picture and sound.
4. Repeat the ‘Manual programme tuning’ steps 7 to 8.
5. Press the **TV/AV** button to return to normal TV viewing.
   The finely tuned programme will be indicated by yellow number during programme selection.



Setting up TV stations

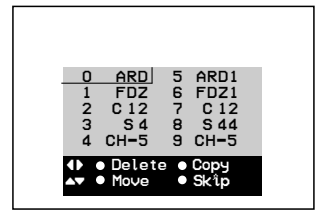
Station Menu



Programme edit

This function enables you to delete or skip the stored programmes. Also you can move some stations to other programme numbers or insert a blank station data into the selected programme number.

1. Repeatedly press the **MENU** button to select the Station menu.
2. Press the ▲ / ▼ button to select **Programme edit**.
3. Press the **OK** button to display the **Programme edit** menu.



Deleting a programme

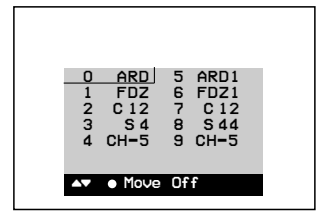
1. Select a programme to be deleted with the ▲ / ▼ or ◄ / ► button.
2. Press the RED button twice.
   The selected programme is deleted, all the following programmes are shifted up one position.

Copying a programme

1. Select a programme to be copied with the ▲ / ▼ or ◄ / ► button.
2. Press the GREEN button.
   All the following programmes are shifted down one position.

Moving a programme

1. Select a programme to be moved with the ▲ / ▼ or ◄ / ► button.
2. Press the YELLOW button.
3. Move the programme to the desired programme number with the ▲ / ▼ button.
4. Press the YELLOW button again to release this function.



Skipping a programme number

1. Select a programme number to be skipped with the ▲ / ▼ or ◄ / ► button.
2. Press the BLUE button. The skipped programme turns to blue.
3. Press the BLUE button again to release the skipped programme.
   When a programme number is skipped it means that you will be unable to select it using the ▲ / ▼ button during normal TV viewing. If you want to select the skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or table menu.

Press the **TV/AV** button to return to normal TV viewing.

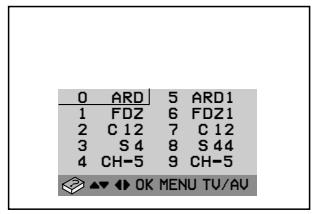
Setting up TV stations

Calling the programme table

You can check the programmes stored in the memory by displaying the programme table.

Displaying programme table

1. Press the **LIST** button to display the Programme table menu. The programme table appears on the screen. One programme table contains ten programmes as below.



Note :

a. You may find some blue programmes. They have been set up to be skipped by auto programming or in the programme edit mode.

b. Some programmes with the channel number shown in the programme table indicate there is no station name assigned.

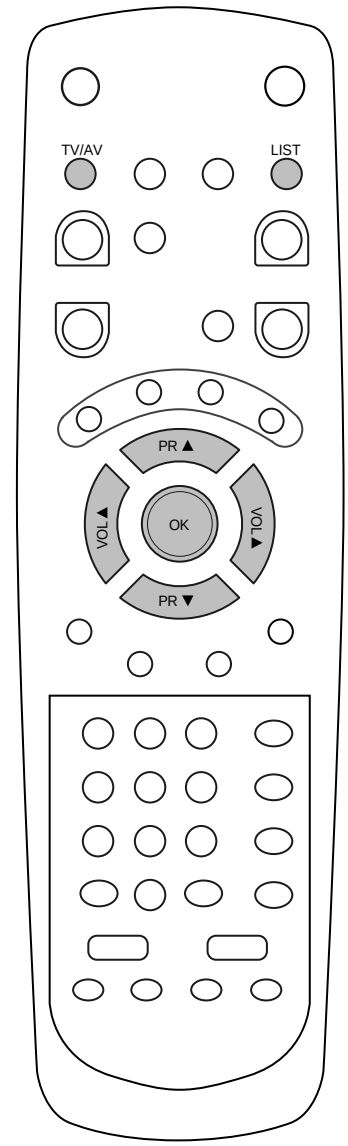
Selecting a programme in the programme table

Select a programme with the ▲ / ▼ or ◄ / ► button.
Then press the **OK** button.
The set switches to the chosen programme number.

Paging through a programme table

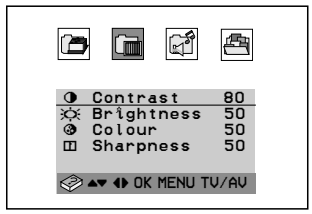
There are 10 programme table pages in which contain 100 programmes.
Pressing the ▲ / ▼ or ◄ / ► button repeatedly turns the pages.

Press the **TV/AV** button to return to normal TV viewing.



Picture adjustment

Picture Menu



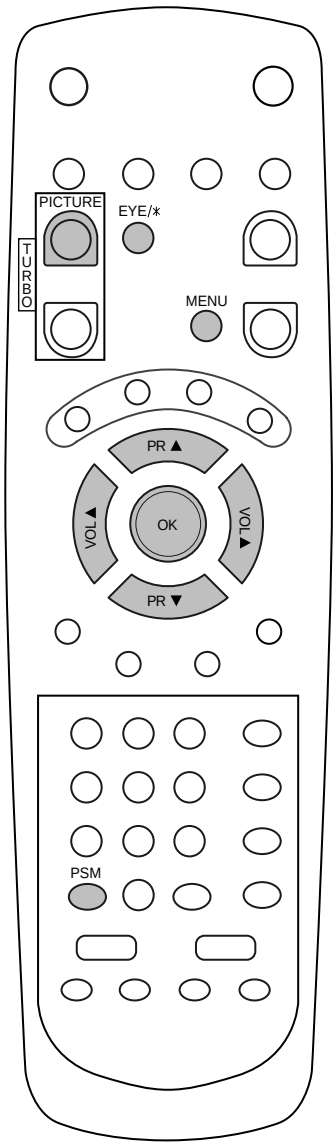
Picture adjustment

You can adjust picture contrast, brightness, colour intensity, sharpness and tint (NTSC AV only) to the levels you prefer.

1. Repeatedly press the **MENU** button to select the Picture menu.
2. Press the ▲ / ▼ button to select the desired picture item.
3. Press the ◄ / ► button to make appropriate adjustments.

4. Press the **OK** button to store it for the picture **User**.

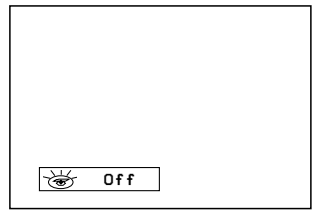
To recall your preferred setting, press the **PSM** button until the desired picture (**Standard**, **Mild**, **Game**, **User** or **Dynamic**) appears. The picture **Standard**, **Dynamic**, **Mild** and **Game** are programmed for good picture reproduction at the factory and cannot be changed.

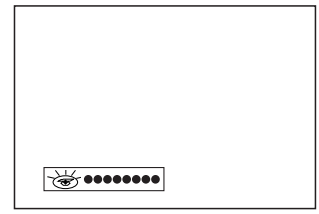


Eye

The set will automatically adjust the picture according to the surrounding conditions. This will enable you to enjoy the most suitable picture according to the surroundings.

Press the **EYE/✱** button to switch the eye function on or off.



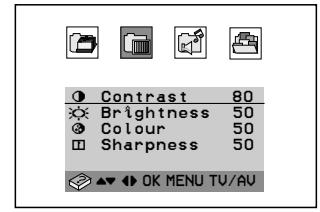


When the eye function is on, the most suitable picture is automatically adjusted according to the surrounding conditions.
At this time the display •••••••• in green does not appear continuously but the display •••••••• in yellow appears each time the picture condition changes.

***Note** : If you press the **PSM** or **TURBO PICTURE** button with the eye function, the eye function is automatically switched off.*

Picture adjustment

Picture format



Picture Menu

You can watch TV in various picture formats ; 4:3, 16:9, Zoom 1, Zoom 2 or Auto.
Repeatedly press the **ARC** button to select your desired picture format.

4:3
This picture format is 4 to 3 of general TV.

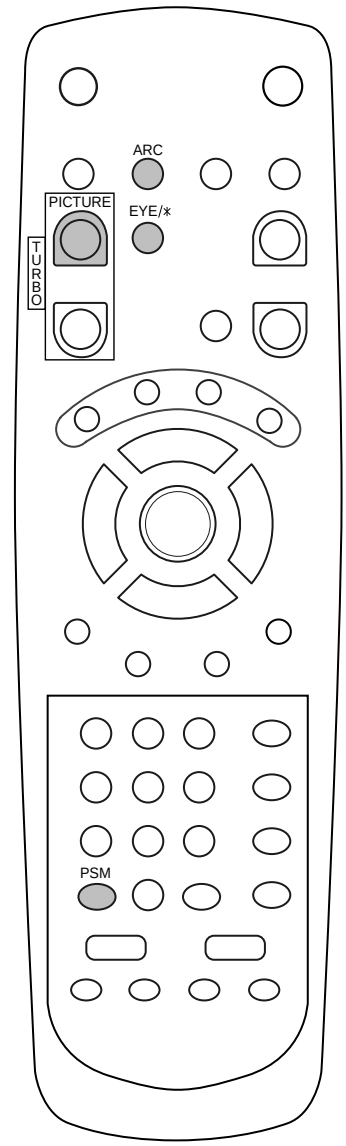
16:9
You can enjoy the cinema (the picture format of 16:9) or general TV programme through the 16:9 mode.
The screen 16:9 is viewed just like that but the screen 4:3 is magnified to the left and right so that the screen 16:9 is full.

Zoom 1
You can enjoy the cinema in a vast screen through the Zoom mode. The screen 4:3 is magnified to the upper / lower and left / right sides so that the screen 16:9 is full. The bottom and top of the picture may be lost.

Zoom 2
You can enjoy more magnified screen in this mode. The screen Zoom 2 is viewed just like that but the screen 16:9 is magnified to the upper and lower so that the screen Zoom 2 is full.

Auto
When your TV receives the wide screen signal, it will be automatically changed to the picture format to be sent.

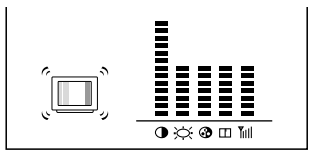
Note : *In the PC mode, only* ***16:9*** *picture format is available.*



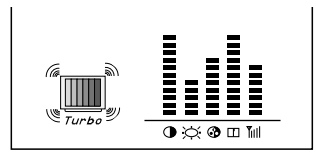
Turbo picture selection

When this function is on, picture will be more brilliant and distinct picture than normal picture. You can enjoy the Turbo picture so much better than normal picture.
Repeatedly press the **TURBO PICTURE** button to switch on or off.

Note : *If you press the* ***PSM*** *or* ***EYE/✱*** *button with the Turbo picture function, the Turbo picture function is automatically switched off.*



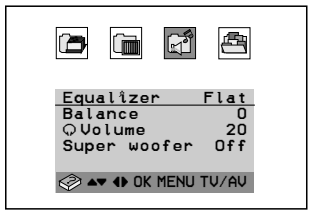
(Turbo picture off)

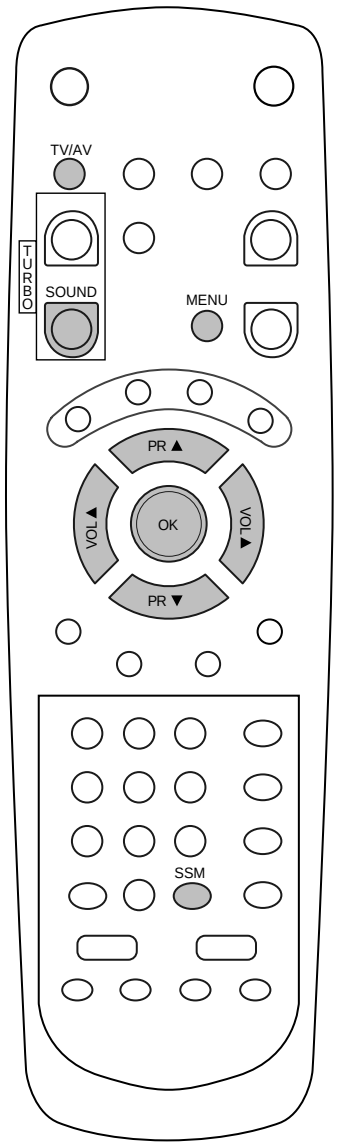


(Turbo picture on)

Sound adjustment

Sound Menu

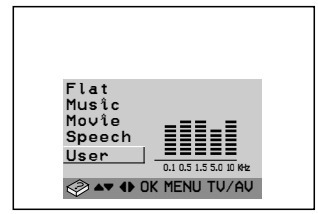




Sound adjustment

You can select your preferred sound setting; Flat, Music, Movie or Speech as you prefer. Also you can adjust the sound frequence of equalizer, balance, headphone volume/sound or super woofer on/off. The Turbo sound creates an all around sound as in a concert hall and the woofer sound stresses and emphasized bass.

1. Repeatedly press the **MENU** button to select the Sound menu.
2. Press the ▲ / ▼ button to select the desired sound item ; **Equalizer**, **Balance**, **Volume** or **Super woofer**.
3. Press the ◄ / ► button to make desired adjustment.
   Press the **OK** button in **Equalizer** to set the **Equalizer User**.



   a. Select **User** by pressing the ▲ / ▼ button.
   b. Select a sound band by pressing the ◄ / ► button.
   c. Make appropriate sound level with the ▲ / ▼ button.
   d. Press the **OK** button to store it for the sound **User**.
      The display **Stored** appears.

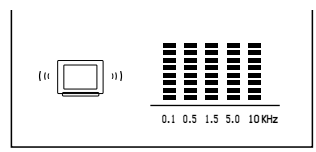
Press the **TV/AV** button to return to normal TV viewing.

To recall your preferred setting, press the **SSM** button until the desired sound (**User**, **Flat**, **Music**, **Movie** or **Speech**) appears. The sound **Flat**, **Music**, **Movie** and **Speech** are programmed for good sound reproduction at the factory and cannot be changed.

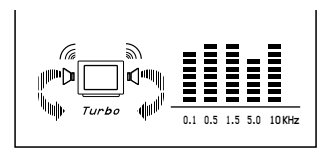
Note : *If you press the **SSM** button after making appropriate adjustment in Sound menu, the display **User** automatically appears even though you have already set a factory preset setting; **Flat**, **Music**, **Movie** or **Speech**.*

Turbo sound selection

When this function is on, sound will be more emphasized and amplified sound than normal sound. You can enjoy the Turbo Sound so much better than normal Sound.
Repeatedly press the **TURBO SOUND** button to switch on or off.



(Turbo sound off)



(Turbo sound on)

Sound adjustment

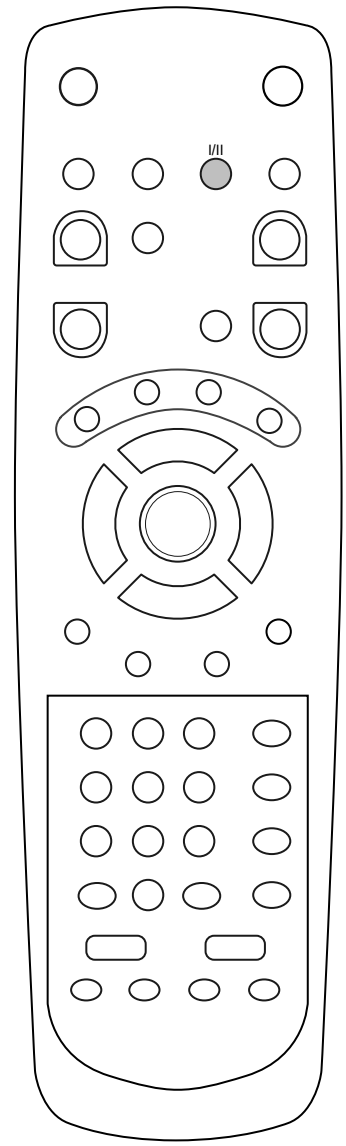
Stereo/Dual reception

When a programme is selected, the sound information for the station appears after the programme number and station name disappear.

Broadcast	On Screen Display
Mono	**MONO**
Stereo	**STEREO**
Dual	**DUAL I**

Mono sound selection
If the stereo signal is weak in stereo reception, you can switch to mono by pressing the **I/II** button twice. In mono reception the depth of sound is improved. To switch back to stereo, press the **I/II** button twice again.

Language selection for dual language broadcast
If a programme received in two languages (dual language), you can switch to **DUAL I**, **DUAL II** or **DUAL I II** by pressing the **I/II** button repeatedly.
DUAL I sends the primary broadcast language to the loudspeakers.
DUAL II sends the secondary broadcast language to the loudspeakers.
DUAL I II sends a separate language to each loudspeaker.



NICAM reception

If your set is equipped with the receiver for NICAM reception, the high quality NICAM (Near Instantaneous Companding Audio Multiplex) digital sound can be received.
Sound output can be selected according to the type of received broadcast as follows by pressing the **I/II** button repeatedly.

1. When NICAM mono is received, you can select **NICAM MONO** or FM MONO.
2. When NICAM stereo is received, you can select **NICAM STEREO** or FM MONO. If the stereo signal is weak, switch to FM mono.
3. When NICAM dual is received, you can select **NICAM DUAL I**, **NICAM DUAL II**, **NICAM DUAL I II** or **MONO**. When FM mono is selected the display **MONO** appears on the screen.

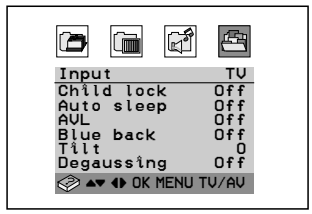
Sound output selection

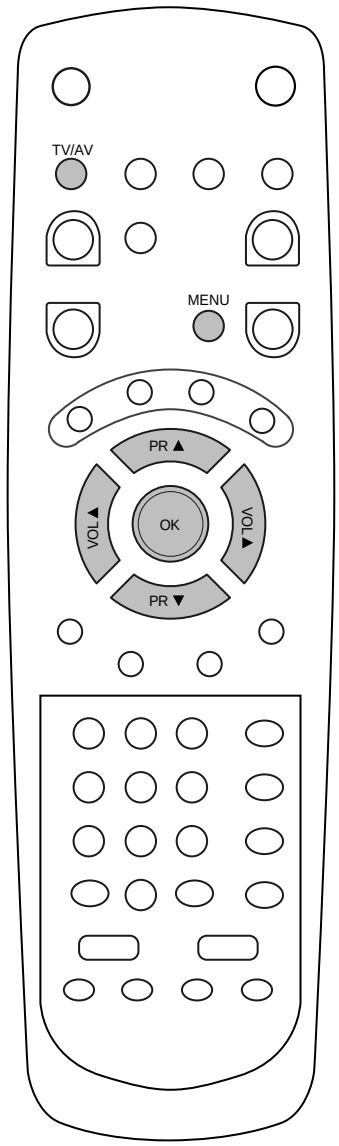
In AV mode, you can select output sound for the left and right loudspeakers.

Repeatedly press the **I/II** button to select the sound output.
L+R : Audio signal from audio L input is sent to left loud-speaker and audio signal from audio R input is sent to right loudspeaker.
L+L : Audio signal from audio L input is sent to left and right loudspeakers.
R+R : Audio signal from audio R input is sent to left and right loudspeakers.

Other functions

Special Menu





TV and AV modes

Inputs can be set for TV or AV mode. AV mode is used when a video cassette recorder (VCR), or other equipment is connected to the set.

Note : *When a VCR is connected via the aerial socket the set is used in TV mode. See the 'Connection of external equipment' section.*

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Input**.
3. Press the ◄ / ► button to select **TV**, **AV 1**, **AV 2**, **AV 3** or **PC**.
   The three AV modes and external equipments are :
   AV1 : VCR connected to the Euro scart socket 1 on the back
   AV2 : VCR connected to the Euro scart socket 2 on the back
   AV3 : VCR connected to the **AV3** sockets on the side panel
   PC : PERSONAL COMPUTER connected to the PC sockets on the back panel

Note : *PC monitor can be input only when the resolution of the PC is 640X480.*

To return to TV mode, press the ▲ / ▼ or NUMBER buttons.

Alternatively you can select the TV or AV mode by pressing the **TV/AV** button.

Auto AV switching

If your VCR outputs switching voltage when it is switched to playback with the VCR connected to the Euro scart socket 1 or 2. The set is automatically switched to **AV 1** or **AV 2** mode when an AV signal is input. But if you want to keep on watching TV mode, press the ▲ / ▼ or NUMBER buttons.
Press the **TV/AV** button to return to AV modes.

Child lock

The TV can be set so that the remote control handset is needed to control it. This feature can be used to prevent unauthorized viewing.

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Child lock**.
3. Press the ◄ / ► button on the remote control handset to select **On**.
4. Press the **TV/AV** button to return to normal TV viewing.

With the lock on, the display **Child lock on** appears on the screen if any button on the front panel is pressed while viewing the TV.

Note : *The display **Child lock on** will not appears on the screen if any button on the front panel is pressed while displaying the menus.*

Auto sleep

If you select **Auto sleep On** the set will automatically switch itself to standby mode approximately ten minutes after a TV station stops broadcasting.

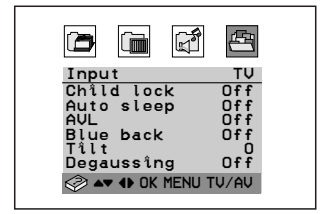
1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Auto sleep**.
3. Press the ◄ / ► button to select **On**.

Other functions

AVL (Auto volume leveler)

If you select **AVL On**, the set automatically keeps on an equal volume level even if you change programmes.

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **AVL**.
3. Press the ◄ / ► button to select **On**.
4. Press the **TV/AV** button to return to normal TV viewing.



Special Menu

Blue back

If you select **Blue back On**, the blue background appears on the screen when there is no or poor signal.

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Blue back**.
3. Press the ◄ / ► button to select **On** or **Off**.
4. Press the **TV/AV** button to return to normal TV viewing.

Tilt

The TV picture may tilt to the left or right if the TV set moves to another position. This function can be used to compensate the tilt.

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Tilt**.
3. Press the ◄ / ► button to adjust the tilt.
4. Press the **TV/AV** button to return to normal TV viewing.

Sleep timer

You don't have to remember to switch the set off before you go to sleep. The sleep timer automatically switches the set to standby after the preset time elapses.
Press the **SLEEP** button to select the number of minutes. The display ⏻**---** will appear on the screen, followed by **10**, **20**, **30**, **60**, **90**, **120**, **180** and **240**. The timer begins to count down from the number of minutes selected.

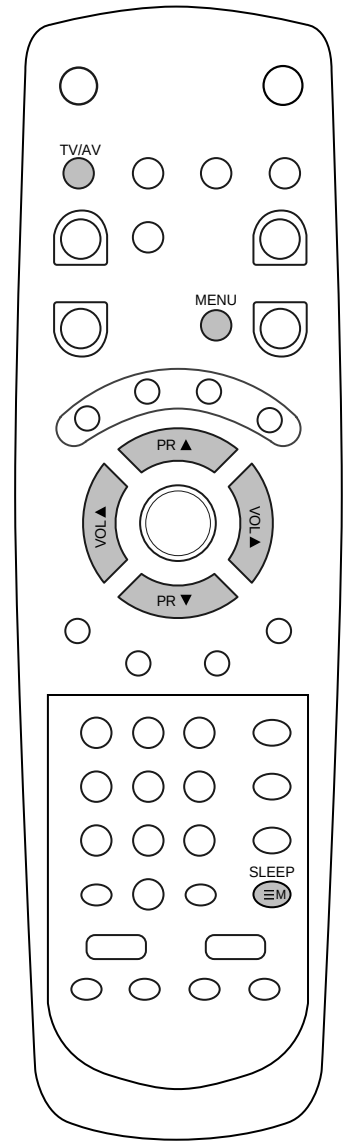
Note :
*a. To view the remaining sleep time, press the **SLEEP** button once.*
*b. To cancel the sleep time, repeatedly press the **SLEEP** button until the display ⏻**---** appears.*
c. When you switch the set off, the set releases the preset sleep time.

Degaussing

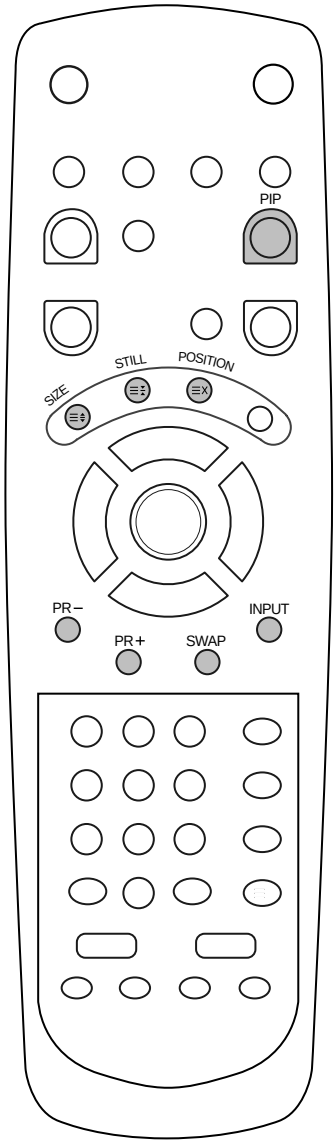
Owing to the super large Braun Tube in the set the magnetic field of the earth may influence on the colour purity of picture by neighbour magnetic substance or installation direction of the set. The stripes may appear on the screen or the colour may not be equal in the corner. You can enjoy the programme in high colour quality by operating the Degaussing.

1. Repeatedly press the **MENU** button to select the Special menu.
2. Press the ▲ / ▼ button to select **Degaussing**.
3. Press the ◄ / ► button to select **On**.
   After the degaussing function works, **On** mode switches to **Off** mode.
4. Press the **TV/AV** button to return to normal TV viewing.

Note : *If you cannot adjust the screen condition by degaussing, try it again after about 5 minutes.*



PIP operation (option)



Option :
PIP is an optional function, so that only the set with PIP function can operate.
PIP (Picture in Picture) displays a picture within a picture.

On and off

Press the **PIP** button to switch on the sub picture.
Press this button again to switch it off.

Programme selection for sub picture (option)

Press the **PR +/-** buttons in AV mode. The selected programme number is displayed at the left upper side of sub picture.

Input mode selection for sub picture

Press the **INPUT** button while the sub picture remains within the main picture.

Each time this button is pressed, each input mode for the sub picture is displayed as shown below at the left upper side of sub picture.

→ Programme number → **AV 1** → **AV 2** → **AV 3** →

Swapping between main and sub pictures

Press the **SWAP** button to exchange the main and sub pictures.

Sub picture size

Repeatedly press the **SIZE** button to select the desired sub picture size. The sub picture appears as 1/4 size of the main picture, followed by 1/9.

Sub picture freeze

Press the **STILL** button to freeze motion of the sub picture.
Press this button again to restore motion.

Sub picture position change

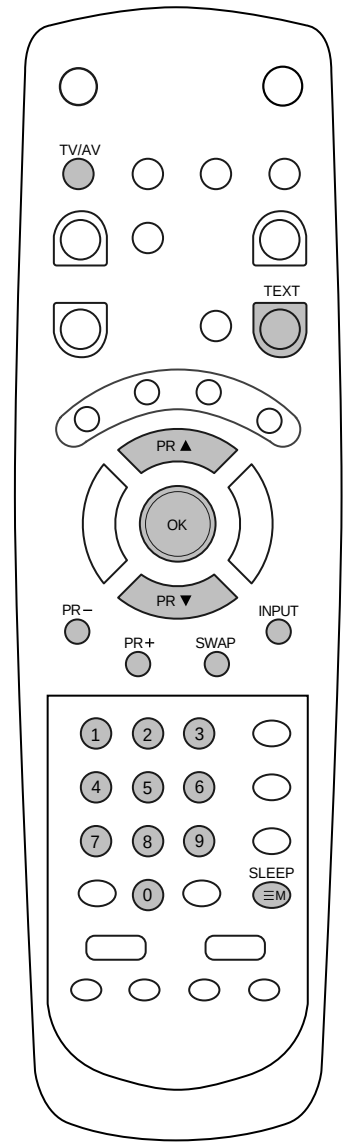
Press the **POSITION** button repeatedly until desired position is achieved. The sub picture moves clockwise.

Teletext (option)

Teletext (or TOP text) is an optional function, therefore only a set with the teletext system can receive the teletext broadcast.

Teletext is a free service broadcast by most TV stations which gives up-to-the-minute information on news, weather, television programmes, share prices and many other topics.

The teletext decoder of this TV can support the SIMPLE, TOP and FASTEXT systems. SIMPLE (standard teletext) consists of a number of pages which are selected by directly entering the corresponding page number. TOP and FASTEXT are more modern methods allowing quick and easy selection of teletext information.



Switch on/off

Press the **TEXT** button to switch to teletext. The initial page or last selected page appears on the screen.
Two page numbers, TV station name, date and time are displayed on the screen headline. The first page number indicates your selection, while the second shows the current page displayed.
Press the **TEXT** or **TV/AV** button to switch off teletext. The previous mode reappears.

SIMPLE text

Page selection

1. Enter the desired page number as a three digit number with the NUMBER buttons. If during selection you press a wrong number, you must complete the three digit number and then re-enter the correct page number.
2. The ▲ / ▼ button can be used to select the preceding or following page.

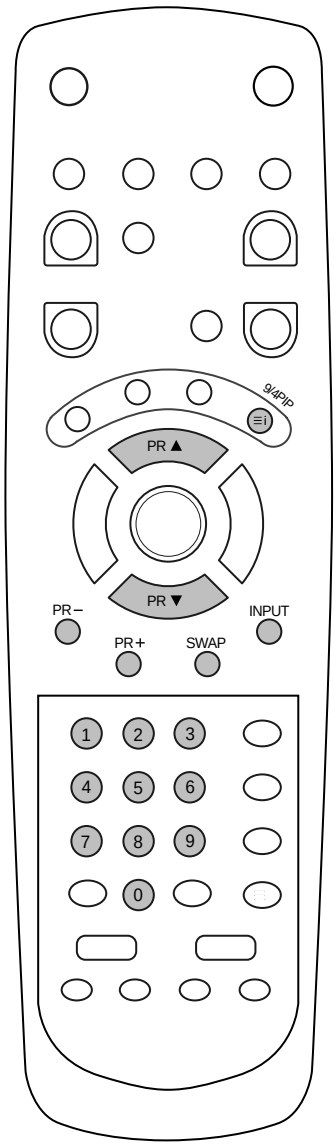
Programming a colour button in LIST mode

If the TV is in SIMPLE text, TOP text or FASTEXT mode, press the ≡M button to switch to LIST mode.

Four teletext page numbers of your choice can be colour coded and easily selected by pressing the corresponding coloured button on the remote control handset.

1. Using the NUMBER buttons, select the page you wish to programme.
2. Wait until the page is displayed on the screen and press the **OK** button. The page numbers in the colour boxes along the bottom of the screen change to "000?".
3. Press a colour button to store the page number. From now on, you can select this page with the same coloured button.
4. The three other coloured buttons are programmed in the way.

Teletext (option)



TOP text (option)

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

Block / group / page selection

1. With the blue button you can progress from block to block.
2. Use the yellow button to proceed to the next group with automatic overflow to the next block.
3. With the green button you can proceed to the next existing page with automatic overflow to the next group.
   Alternatively the ▲ button can be used.
4. The red button permits to return to previous selection.
   Alternatively the ▼ button can be used.

Direct page selection

Corresponding to the SIMPLE teletext mode, you can select a page by entering it as a three digit number using the NUMBER buttons in TOP mode.

FASTEXT

The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

Page selection

1. Press the ≡i button to select the index page.
2. You can select the pages which are colour coded along the bottom line with the same coloured buttons.
3. Corresponding to the SIMPLE teletext mode, you can select a page by entering its three digit page number with the NUMBER buttons in FASTEXT mode.
4. The ▲ / ▼ button can be used to select the preceding or following page.

Teletext (option)

Special teletext functions

REVEAL
Press this button to display concealed information, such as solutions of riddles or puzzles.
Press this button again to remove the information from the display.

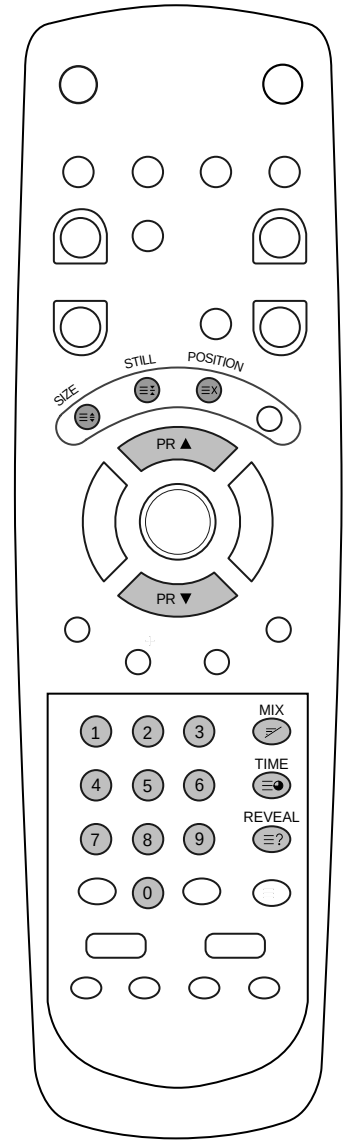
SIZE
Selects double height text.
Press this button to enlarge the top half of the page.
Press this button again to enlarge the bottom half of the page.
Press this button again to return to the normal display.

UPDATE
Displays the TV picture on the screen while waiting for the new teletext page. The display will appear at the top left hand corner of the screen. When the updated page is available then display will change to the page number.
Press this button to view the updated teletext page.

HOLD
Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages. The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this button is pressed the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inhibited.
To continue press this button again.

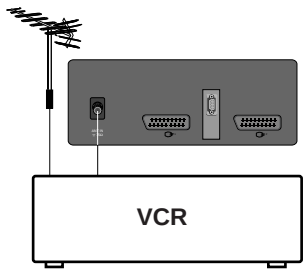
MIX
Displays the teletext pages superimposed on the TV picture.
To switch the TV picture off press this button again.

TIME
When viewing a TV programme, press this button to display the time at the top right hand corner of the screen. Press this button again to remove the display.
In the teletext mode, press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the ▲ / ▼ or NUMBER buttons.
Press again to exit this function.



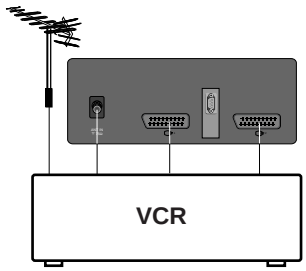
Connection of external equipment

You can connect additional equipment, such as VCRs, camcorders etc. to your set.
Here shown may be somewhat different from your set.



Aerial socket

1. Connect the RF out socket of the VCR to the aerial socket on the back of the set.
2. Connect the aerial cable to the RF aerial in socket of the VCR.
3. Store the VCR channel on a desired programme number using the 'Manual programme tuning' section.
4. Select the programme number where the VCR channel is stored.
5. Press the **PLAY** button on the VCR.



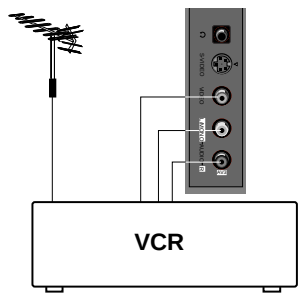
Euro scart sockets

1. Connect the Euro scart socket of the VCR to the Euro scart socket 1 or 2 of the set.
2. Press the **PLAY** button on the VCR.
   If your VCR outputs a switching voltage connect to Euro scart socket 1 or 2, the set will switch to **AV 1** or **AV 2** mode automatically. But if you want to keep on watching TV mode, press the ▲ / ▼ or NUMBER buttons.

   Otherwise press the **TV/AV** button on the remote control handset to select **AV 1** or **AV 2**. The VCR playback picture appears on the screen.

   You can also record programmes received by the TV on video tape.

Note :
a. Signal type RGB, i.e. the signals red, green and blue can only be selected for the Euro scart socket 1 (not Euro scart 2).These signals are transmitted, for example, by a computer, pay TV decoder, game machine or photo CD unit, etc.
*b. If both Euro scart 1 and 2 sockets have been connected to the VCRs simultaneously, only the **AV 1** can be received.*



Audio/Video in sockets

1. Connect the audio/video out sockets of the VCR to audio/video in sockets of the set.
2. Press the **TV/AV** button to select **AV 3**.
3. Press the **PLAY** button on the VCR.
   The VCR playback picture appears on the screen.

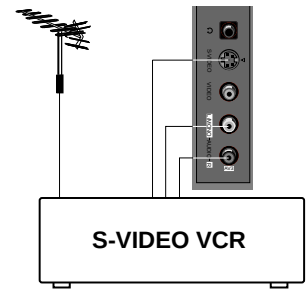
Note : *If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L/MONO** socket on the side panel.*

Connection of external equipment

S-Video/Audio in sockets (S-AV)

When connecting an S-VIDEO VCR to the **S-VIDEO** socket, the picture quality will be further improved.

1. Connect the S-Video socket of the VCR to the **S-VIDEO** socket on the side panel of the set.
2. Connect the audio cable from the S-VIDEO VCR to the **AUDIO** sockets on the side panel of the set.
3. Select **AV 3** by pressing the **TV/AV** button repeatedly.
4. Press the **PLAY** button on the VCR.
   The VCR playback picture appears on the screen.



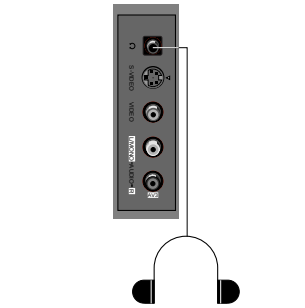
Note : *If both **S-VIDEO** and **VIDEO** sockets have been connected to the S-VHS VCR simultaneously, only the **S-VIDEO** can be received.*

Headphone socket

Insert the headphone plug to the headphone socket on the side panel.
You can listen to the sound through the headphone and the TV's speakers. To adjust the headphone volume in the Sound menu, press the ▲ / ▼ button to select **Volume** then the ◄ / ► button. See the 'Sound adjustment' section.

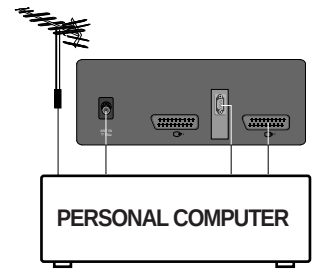
If you press the **MUTE** button, only the sound from the TV's speakers are switched off.

When a programme is received in dual language, you can select a language (**DUAL I**, **DUAL II** or **DUAL I II**) for the sound from the headphone regardless of that from the TV's speakers. In the Sound menu, press the ▲ / ▼ button to select **Volume** then **I/II** button to select the desired language; **I**, **II** or **I II**.
At this time if the set is in AV mode, the **I/II** button selects output sound; **L R**, **L L** or **R R**, in turn.



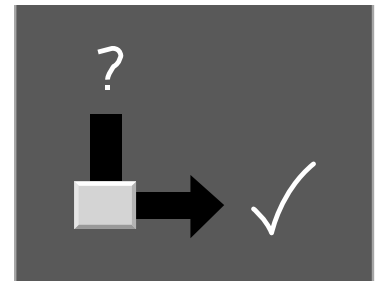
PC in socket

1. Connect the monitor output socket of the PERSONAL COMPUTER to the PC input socket on the back panel of the set.
2. Connect the audio cable from the PC to the Euro scart socket 2 on the back panel of the set.
3. Press the **TV/AV** button to select **PC**.
4. Turn the PC on, and the PC screen appears on the set.
   The set can be operated as the PC monitor.



Troubleshooting check list

Symptoms



No picture, no sound

Sound OK, poor picture

Picture OK, poor sound

Picture blurred

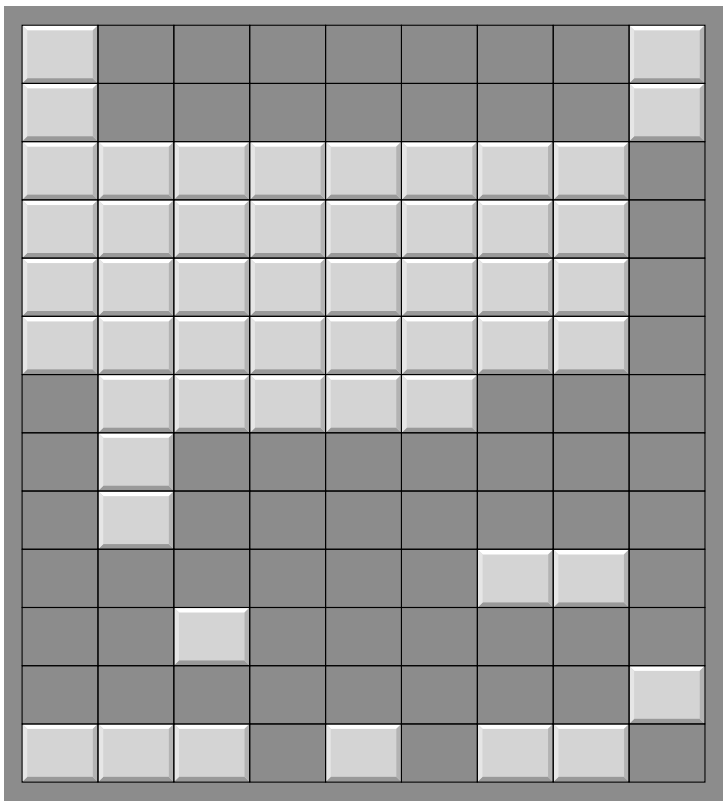
Lines or streaks in picture

Poor reception on some channels

No colour

Poor colour

Remote control does not work



Check these items and try to adjust these

The mains plug-(plugged in and switched on)

Is the TV switched on

Try another channel (weak signal)

Check aerial (plugged into TV?)

Check aerial (broken lead?)

Check aerial

Check for local interference

Adjust contrast

Adjust brightness

Adjust colour

Adjust volume

Check the batteries in remote control

Check Audio/Video sockets (VCR only)

LG Electronics

GUARANTEE

- LG Electronics U.K. Ltd. will provide the following services in order to expedite this Guarantee.

1. All faulty components which fail due to defective manufacture will be replaced free of charge for a period of 12 months from the original date of purchase.

2. The dealer (or his service agent) who sold the product will be reimbursed for any labour provided in the repair of this LG equipment, for a period of 12 months from the original date of purchase. These claims must be made in accordance with the published scale of service charges and relevant claims procedure.

PLEASE NOTE:

A. The dealer may restrict the guarantee to the original purchaser.
B. The dealer is not obliged to carry out service under guarantee if unauthorized modifications are made to the apparatus, or if non standard components are used or if the serial number of the apparatus is removed, defaced, misused, or altered.
C. Any claims made under guarantee must be directed to the dealer from whom the equipment was originally purchased. The dealer may, before carrying out service under guarantee, require a receipted account as evidence of the date of purchase.
D. We respectfully point out that your dealer is not obligated to replace batteries if they become exhausted or worn in use.
E. Aerial alignment and consumer control adjustments are not covered by this guarantee.

This guarantee does not affect your statutory rights.

- REQUIREMENTS TO MAINTAIN WARRANTY COVERAGE:

RETAIN YOUR RECEIPT TO PROVE DATE OF PURCHASE. A COPY OF YOUR RECEIPT MUST BE SURRENDERED AT THE TIME GUARANTEE SERVICE IS PROVED.

- Product Registration Card: It is helpful to complete at least your name, address, phone, model & serial numbers and return it. This will enable LG to assist you in the future should you lose your receipt, your units be stolen, or should modifications be necessary.

- To obtain information or assistance: Call 0870 607 5544 Monday-Friday 9.00am-4.30pm.

MODEL NO.*	SERIAL NO.*	DATE OF PURCHASE *

* Please complete for your own record

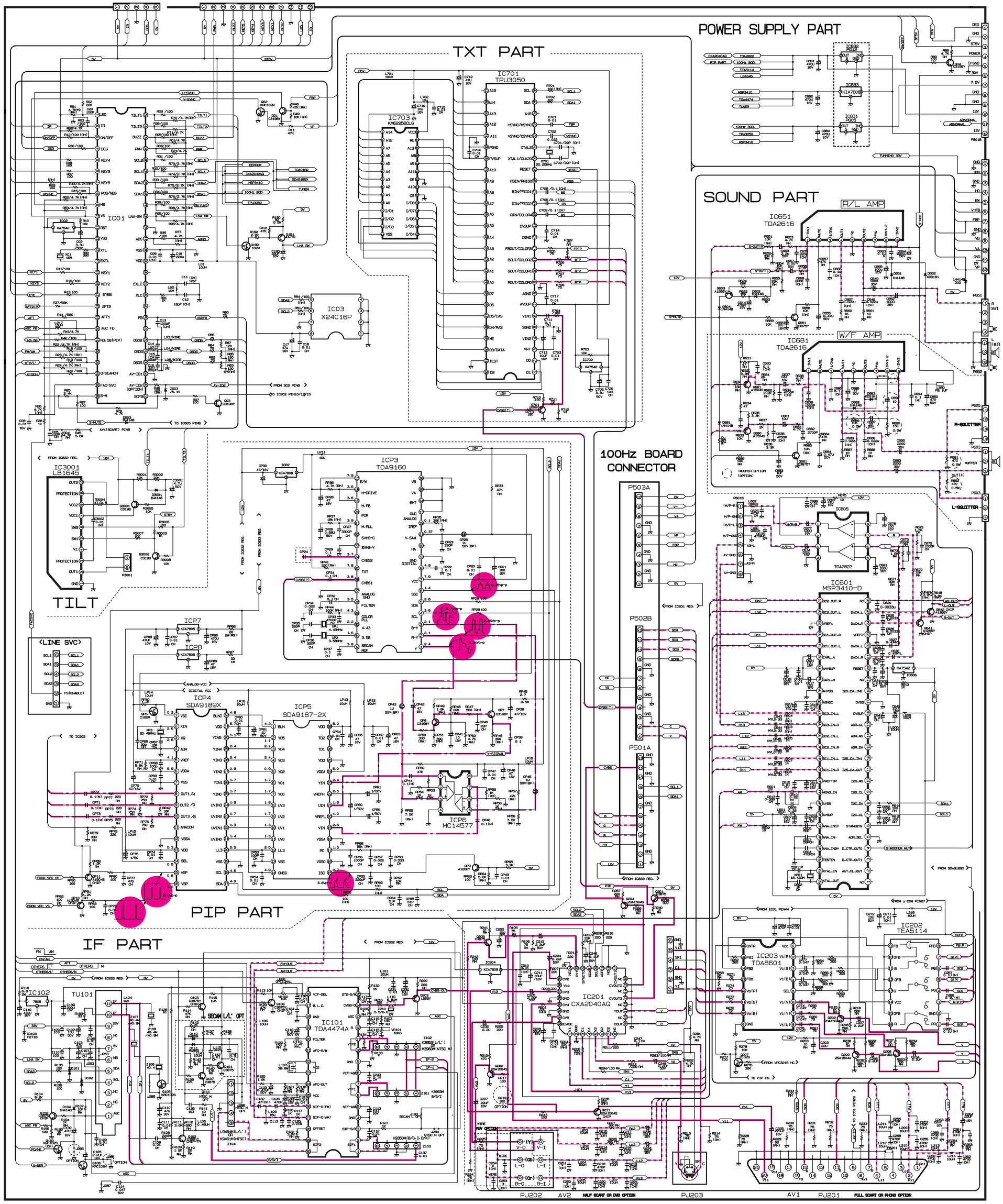
In all cases of difficulty - consult your LG dealer from whom the product was purchased

Service Sheet of MC-993A

CIRCUIT DIAGRAM FOR MC-993A CHASSIS MAIN1

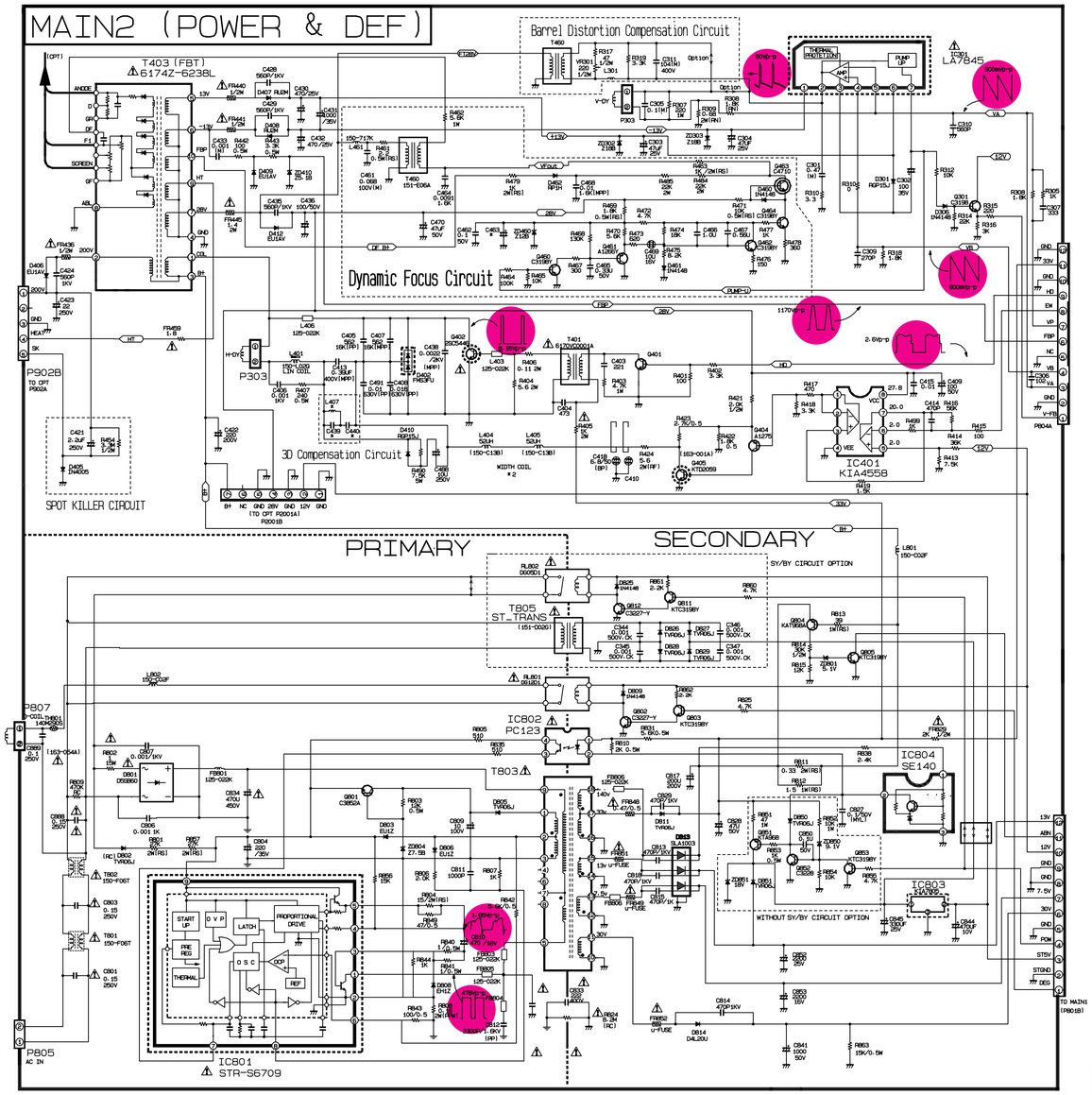
99 03 11 Y S Park

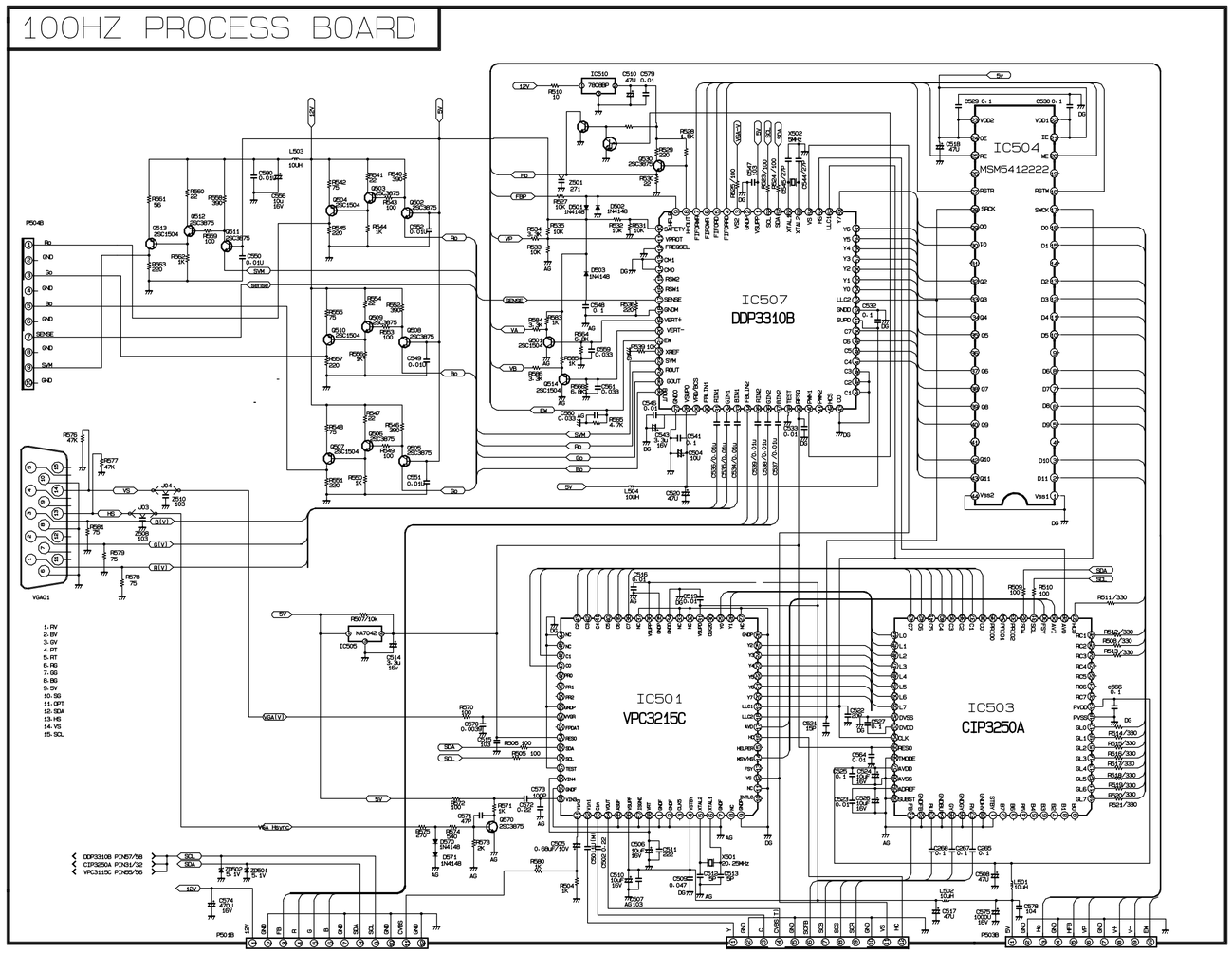
P/N : 3854VA0061A-S1(1/2)
Date : 1999.7.23

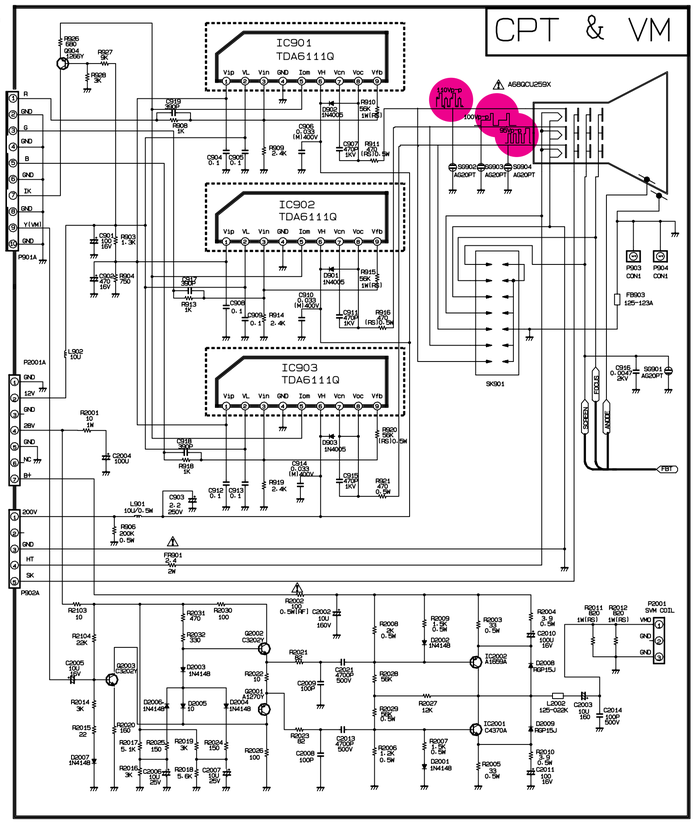


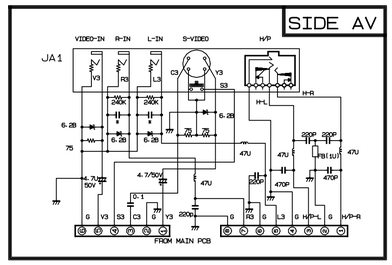
Service Sheet of MC-993A

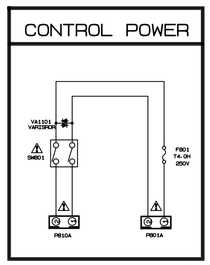
P/N : 3854VA0061A-S2(1/2)
Date : 1999.10.4



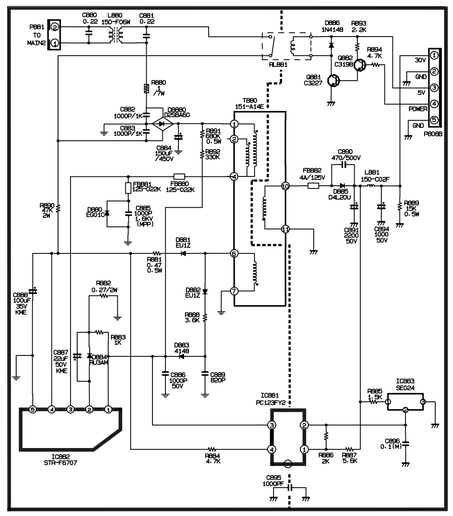








〈WIDE RANGE POWER BOARD〉
(FOR WIDE RANGE)



NOTICE

1. Before servicing, unplug power cord to prevent an electric shock.
2. When replacing parts or circuit boards, please do not touch the peripheral circuitry, unless necessary.
3. When soldering or unsoldering, please use a 30W soldering iron and take precautions against static electricity.
4. Use only manufacturer's recommended parts for safety.
5. Check for proper grounding after servicing to prevent any shock hazard.

Value of resistor, capacitor and inductor

1. Resistances are shown in ohm, K=1,000, M=1,000,000.
2. Capacitors are shown in MFD or other unless otherwise noted. Values less than 1 are expressed in μF and the values are less than 1 in pF.
3. Inductance is shown in micro-henry unless otherwise noted. Values less than 1 are expressed in μH.

Observation of voltage and waveforms

1. Voltage is measured with a DVM connected to chassis ground unless otherwise noted.
   Line voltage is 200 ~ 250 volts.
   Signal pattern is color-bar.
2. The waveform is measured using a wide band oscilloscope and a 10X capacity probe.
3. The schematic shown is representative only. Actual circuitry may vary slightly.
4. Check fine tuning, AGC, brightness, contrast and color for optimum picture quality before making adjustments. Adjustments are in mid position and contrast is in max.